Our Philosophy

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point

A collection of basic notions concerning the world and our way of considering it. Divided into two investigations: one concerned with the theory of knowledge, and the .other, with the philosophical notion of the world

The Nature of This Work

Our Philosophy is a collection of our basic notions concerning the world and our way of understanding it. For this reason, the book, with the exception of the Introduction, is divided into two investigations: one concerned with the theory of knowledge, and the

.other, with the philosophical perspective of the world

:The task of the first investigation undertaken can be summarized as follows

To provide evidence for the [rationality] logic which asserts that the rational method of thought is sound, and that the mind - as it is equipped with necessary knowledge prior to experience - is the primary criterion of human thought. There can be no philosophical or a scientific thought that does not submit to this general criterion. Even the experience that empiricists claim to be the primary criterion is not in reality anything but an instrument for applying the rational criterion. The experiential theory .cannot dispense with the rational treasure

To study the value of human knowledge, and to show that one can admit that knowledge has a [true] value on the basis of

p: ١

rational logic, and not on the basis of dialectical logic which cannot give knowledge a .true value

Our basic purpose in this investigation is to determine the book's method in the second investigation, since the positioning of a general notion concerning the world depends, in the first place, on determining the principal method of thought, the general criterion of true knowledge,(١) and the extent of (p. ٨) the value of true knowledge. That is why the first investigation is in fact a preparatory discussion for the second. The second investigation of the work is the basic investigation, to which .we would like to direct the reader's attention in particular

The discussion of the second investigation is covered in five parts. In the first part, we present the philosophical notions in conflict and their identifications. We will also offer .some clarification of these notions

In the second part, we will take up the dialectic ideologies, since it is the best-known method on which modern materialism rests today. Thus, we will study objectively and in detail all the major ideas of the dialectic that were formulated by Hegel(٢) and Karl

.Marx(٣), the two dialectic philosophers

In the third part, we will study the principle and laws of causality that govern the world, as well as the comprehensive philosophical explanation of the world that causality offers us. We will also treat a number of philosophical doubts that have .emerged in light of recent scientific developments

From there, we will move to the fourth part [concerning] matter and

p: ٢

١- Al-ma'rifa as-sahiha. But is it not redundant to speak of true knowledge? Is there ?such a thing as false knowledge, for example

٢- Georg Wilhelm Friedrich Hegel, German philosopher (١٧٧٠-١٨٣١). He taught that the rational is the real, and the real is the rational. Opposites are essential elements of change, as Heraclitus had believed. The pattern of change takes the form of triads: thesis, antithesis and synthesis. His best-known works are: The Phenomenology of Mind (١٨٠٧), Science of Logic (١٨١٢-١۶), Encyclopedia of Philosophy (١٨١٧), The Philosophy of Right (١٨٢٠). His students' notes functioned as the basis for his lectures on the philosophy of history and the philosophy of religion which were published .posthumously

٣- Karl Marx (١٨١٨-٨٣). Marx began his intellectual life as a left Hegelian. In ١٨۴۴, he became a political activist, a known radical figure and a friend of Friedrich Engels. His friendship with Engels led to their joint work, The Manifesto of the Communist Party .(١٨۴٨). The first volume of his other important work, Capital, was published in ١٨۵٩

God(١). This discussion relates to one of the final stages of the conflict between materialism and theology, so that we can form our theological notion of the world in .light of the philosophical laws and the various natural and human sciences

In the final part, we will study one of the most significant philosophical problems namely, that of knowledge - which constitutes an important area of conflict between materialism and metaphysics. The discussion is treated on philosophical grounds and in light of the various sciences that are related to the subject, be they natural,

.physiological or psychological

This is a general, comprehensive outline of the book. It is now in your hands as a result of ten months of successful efforts that led to its production in the present form. I greatly hope that it will carry out faithfully and sincerely something of the holy message. (p. ٩). I ask the dear reader to study the investigations of this work in an objective fashion, with complete concentration and reflection, judging, in conformity, or against it, on the precise philosophical and scientific criteria available to him, and .not emotionally

Further, I do not wish to have him read the book as he would read a play or a kind of intellectual or literary luxury. The book is not a play, a literary piece, or an intellectual luxury. Rather, at heart, it is concerned about the problems of reflective human .beings

My success is only from God on Whom I have relied and to Whom I

AI-madda aw al-lah (matter or God). In this chapter, the author tries to determine -١ .whether it is matter or God that is the primary cause of the world

.resort

An-Najaf al-Ashraf, Rabi' ath-Thani, ٢٩, ١٨٧٩ A.H., Muhammad Baqir as-Sadr

Introduction: The Social Issue

point

The world problem that preoccupies human thought today and touches its core reality is that of the social system. This problem can be summed up in the endeavour to give the most truthful answer to the following question: 'Which system is good for human '?beings and provides them with a happy social life

Naturally, this problem occupies an important position, and is, with its complexity and

variety of kinds of efforts for solving it, a source of danger for humankind itself. This is so because the system is an aspect of the consideration of human life and affects the .innermost structure of its existence

.This problem is deeply rooted in the distant times of human history

Mankind has confronted is ever since it arose in actual social life. [Primitive] communal human [living] began exemplified in a number of individuals joined together, united by common relations and bonds. But these relations, which were formed to satisfy the requirements of instinct and nature, were, as a matter of fact, in need of guidance and organization. It is on the basis of the extent of harmony between such organization and human reality and welfare that the stability and happiness of society .depend

This problem has driven humanity to plunge into a long struggle in the ideological and political fields, and into different kinds of conflicts, and of various intellectual doctrines (p. ۱۲) that seek to establish and construct the social edifice, as well as

p: ۴

to formulate its designs and to posit its principles. This is a delicate struggle full of .tragedies and injustice, and overflowing with laughter and tears

Happiness and misery were linked together in it. All of this was due to the expressions of deviation and estrangement from the proper social condition that were represented in [various] social forms. Were is not for flashes of light that shone at certain moments in the history of this planet, human society would have been living in .constant misery, and continuously swimming in overwhelming waves

We do not wish at the present to discuss [all] the aspects of the human struggle in the social field. It is not our purpose in this study to write a history of human misery and environments in which for a long time humankind has experienced vacillation in fortune. Rather, we wish to accompany mankind in its present reality and in the objectives it has attained. By so doing, we know the end to which humankind's march

must lead, and the natural shore toward which the ship unavoidably pushes its way, and then, anchors at its [side]; so that it attains peace and goodness, and returns to a stable life full of justice and happiness, after a long painful struggle, and wide travels .to various points, in different directions

The Social Schools of Thought

The most important social schools of thought that pervade general human thought today, and that are ideologically or politically in conflict among each other, according to the relevance of their social existence to

the lives of human beings are four in number. (۱) the capitalistic democratic system; (۲) the socialistic system; (۳) the communistic system (p. ۱۸); and (۴) the Islamic .system

Two of these four systems partition the world today. The capitalistic democratic system forms the basis of government for a large region of the earth, while the communistic system prevails in another large region. Each of the two systems enjoys great political stature that protects it in its conflict with the other, and that arms it in the gigantic battle that its heroes fight to seize the leadership of the world and unify .the social system in it

Regarding the communistic and Islamic systems, they are in actuality purely ideological. However, the Islamic system was tried as one of the most magnificent and successful social systems. After that, it was crippled when the scene became .bereft, or almost bereft, of principled leaders

The attempt continued at the hands of pile who neither embraced Islam nor felt the elision of its spirit and substance. Thus, it failed to stand defiant and to continue. Hence, the Islamic structure was destroyed. [With this], the Islamic system continued, [cherished] as an idea in the mind of the Islamic nation, as a doctrine in the hearts of .Muslims, and as a hope seeking realization by the snuggling Muslim children

As for the communistic system, it is an idea that has not yet been fully tried. Rather, a the present, its leaders attempt to prepare for it the (proper] social atmosphere

p: ۶

which they failed to apply when they seized power. Then they proclaimed the .socialistic system and applied it as a step coward reel communism

Now, why concerns us about these systems? For what position must we devote our (lives, and toward the shore of which position must we steer the ship? (p. ۱۴

Capitalistic Democracy .۱

point

Let us begin with the capitalistic democratic system. Thin system puts an end to a kind of injustice in economic life, to dictatorial rule in political life, and to the stagnation of the church and its ideational life. Capitalistic democracy tightened the reins of power and influence for a new group of rulers that replaced earlier ones, and adopted the .same social role played by their predecessors, but used a new style

Capitalistic democracy is based on unlimited confidence in the individual, and in the fact that the individual's personal interests naturally ensure the interests of society in various areas. The idea of such a state is that it seeks to protect the individuals and their personal interests. Therefore, it is not permissible for it to go beyond the limits of this purpose in its activities and in the fields of its operations. The capitalistic democratic system can be summed up in the declaration of the four types of freedom: .political freedom, economic freedom, ideational freedom and individual freedom

Political freedom dictates that the words of every individual be heard, and that his evaluation of the general life of the nation be respected, [as in] laying down the nation's plans in

p: ۷

its legislation,(۱) and in assigning the powers entrusted with its defense. This is

because the social system of a nation and its ruling organization is a maser directly related to the life of every one of its individuals and has a great influence on his happiness or misery. It is, therefore, natural that every individual has the right to .participate in constructing the system and government

If the social condition is, as we have already stated, a matter of life and death and a matter of happiness and misery for the citizens to whom the laws and general systems are applied, it is then also natural not to evolve its responsibility upon an individual or a specific group (p. ۱۵) of individuals, regardless of circumstance, as long as there is no individual above emotions and errors because of his unblemished .intentions and his weighty mind

It is necessary, therefore, to advocate complete equality of political rights among all citizens; for all citizens are equally subject to the effects of social conditions, and equally submit to the requirements of legal and executive powers. It is on the basis of this [equality] that the right to vote and the principle of a general election were established. These ensure that the ruling organization, in all its powers and members, .comes from the majority of citizens

Economic freedom relies on confidence in a free economy, and is determined to open all channels [of opportunity] and to prepare all fields. In the economic field the citizen is permitted

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.(Text: qawaninihima (the laws of both of them -۱

ownership(۱) of both consumption and production. This productive ownership, from which capital is formed, is available to all people equally, without limitation or restriction, and to all of them equally. Thus, every individual]gas the full freedom to pursue any approach and to take up any path for acquiring, enlarging and multiplying .his wealth in accordance with his personal interests and benefits

Some of the defenders of this kind of economic freedom make the following claims.

Firstly, the laws of political economy that are naturally concordant with general principles insure the happiness of society and the retention of its economic balance. Secondly, personal interest, which is a strong incentive and a real goal of the individual in his work and activity, is the best insurance of the general social welfare.

Thirdly, the competition that takes place in the free market as a result of producers and merchants exercising their equal right to economic freedom is alone sufficient for realizing the spirit of justice and fairness in the various contracts and deals.

Thus, natural economic laws almost mechanically intervene - for example, to conserve the normal price level. That is, if the price becomes higher than its normal and just limits, the demand falls, in accordance with the natural law that dictates that a rise in price affects the fall in demand, and that the fall in demand leads, in rum, (p. ۱۶) to a lowering of the price, in order that another natural law is satisfied. The fall in demand persists

p: ۹

۱- i.e., control over.

in this fashion, until it brings the price down to its previous level. With this, deviation is eliminated [in the long run].

Personal interest always requires the individual to think of ways to increase and improve production, while decreasing its cost and expenses. This fulfills the interest of society, when at the same time it is also considered something proper to the individual.

Competition naturally requires the fixing of the prices of goods and the salaries of employees and service personnel justly, and free from wrongdoing and prejudice. For every salesman or producer is weary of raising the price of his goods or lowering the salaries of his employees, because others, including salesmen and producers are competing against him.

Ideational freedom dictates that people must have a life of ideological and doctrinal freedom. That is, they must be able to think in any manner that they see fit and that appeals to their intellects; and uphold whatever [views] they have arrived at as a result of their own efforts or the inspiration of their desires and inclinations, without being hampered by the government. It also dictates the freedom of expressing one's .thoughts and doctrines and of defending one's points of view and interpretations

Individual freedom expresses the liberation of the personal conduct of a human being from various kinds of pressures and limitations. Thus, he has control over his will and its development in accordance with his own desires, regardless of the complications and consequences that may occur as a result of his exercise

p: ١٠

of this power over his personal conduct, as long as his power does not conflict with .others' powers over their conduct

Hence, the final limit on the individual freedom of everyone is the freedom of others. Thus, unless the individual misuses this kind of freedom, he will not be harmed by living in any manner he pleases, and pursuing the various habits, traditions, slogans and rituals that he seeks to enjoy, because it is a matter of his existence, his present and his future. As long as he has this existence, he has the power to manage it as he .wishes

Religious freedom in the opinion of capitalism that calls for it is nothing but (p. ١٧) an expression of ideational freedom in its doctrinal form, and of the individual freedom in .the practical form, that is related to slogans and conduct

One can conclude from this exposition that a major ideological point in this system is that, as mentioned, the interests of society are embodied in the interests of individuals. Thus, the individual is the basis on which the social system must be established. The good state is that organization that can be used for the service and for the sake of the individual, and that is a strong instrument for preserving and .protecting his interests

These are the basic principles of capitalistic democracy due to which a number of revolutions have occurred, and for whose sake many people and nations struggled under leaders who, whenever they spoke of this new system and

enumerated its advantages, it was [as though] they described the heavens with its paradise and its happiness, as well as the liberty, well-being, dignity and richness that .it promises

Later on, a number of amendments were added to this kind of democracy, but they did not affect its innermost substance. Rather, it continued with its most important .principles and fundamentals

I. The Materialistic Tendency in Capitalism

It is clear that this social system is a purely materialistic system that people adopted, separating themselves from their source and final end, and limiting themselves to the .beneficial side of their material life. People adopted(١) [this system] along these lines

But this system, which was at the same time full of a tyrannical materialistic spirit, was not established on a materialistic philosophy of life and a detailed study of it. Life in the social atmosphere of this system was separated from any relation external to the limits of material things and benefits. However, setting up this system did not assume a complete philosophical comprehension of this process of separation. I do not mean by this that the world did not have schools of the materialistic philosophy and .defenders of it

Indeed, an advent of the (p. ١٨) materialistic tendency resulted from the influence of the empirical mentality that had prevailed ever since the Industrial Revolution.(٢) Its prevalence was due firstly to the intellectual spirit of doubt and confusion that was caused by the change in opinion concerning a number of notions that were considered among the clearest and most sound truths;(٣) and

Text: wa -ftarad -١

Experimentation acquired great importance in the scientific field, and achieved an -٢ unexpected success in the discovery of many truths and in the revelation of astonishing secrets which opened the opportunity for men and women to exploit in their practical lives. (p. ١٨) The success of this experimentation glorified it in the common mentality, and led people to abandon rational thought, as well as all the truths that do not appear in the empirical and experimental fields, so that sense experience became, in the view of many empiricists, the only ground of any knowledge or science. In this book, we will show that experimentation in itself relies on rational thought and that the primary ground of knowledge and science is the mind, which grasps the truths that are not accessible to the senses, as are sensible .truths

A group of general doctrines were very clear and simple to the common - ٣ understanding, even though they were not based on a rational method or on philosophical evidence, such as the belief that the earth is the center of the universe. But when such beliefs collapsed in the face of sound experiments, the common belief was shaken, and a wave of doubt prevailed, over many minds. Thus, there was a rebirth of Greek sophistry influenced by the spirit of doubt, as it was influenced in Greek times by the spirit of doubt which was the outcome of contradiction among .philosophical schools and disputes concerning them

secondly the spirit of rebellion and anger against the alleged religion that caused thoughts and intellects to stagnate, appealed to wrongdoing and power, and supported social corruption in every battle is waged against the weak and the (persecuted.(١) (p. ١٩

These three factors helped materialism arise in many Western mentalities. All of this is true, but the capitalistic system does not center on a materialistic philosophical notion of life. This is a contradiction and a failure; for the social consideration of life is linked to the reality of life, and is not case in a sound form unless it is established on a .central basis that explicates life, its reality and its limits

The capitalistic system lacks this basis. It involves in its innermost spirit deceit and misguidance, speed and impatience, since it freezes the actual situation of life, and studies the social conditions in isolation from it. This is so, in spite of the fact that the essence of the ideological standard for the system [was] from the very beginning defined by its view of the reality of life that supplies society with social material - this being the relations exchanged among people - of the method of its understanding this .reality, and of discovering its secrets and values

Thus, if humankind existed on this planet due to the skill of a governing and protective power who knew of their secrets and mysterious affairs, their expressions and details of their lives, and took charge of organizing and guiding them, it is

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The church played an important role in exploiting religion in an ugly way. It used the -١ name of religion as an instrument for fulfilling its desires and objectives and for stifling the scientific and social spirit. It established inspection courts to which it gave wide powers over managing the fates of people. All of this led to discontent and anger with religion, for the crime was committed in the name of religion, even though in its pure reality and true essence, religion was not less disturbed by that crime than those who were discontented and angry with it, nor was it less repelled by the motives and .consequences of that crime

then natural that in orientation and style of living, they would submit to this creative power, since it is more discerning of their affairs, more knowledgeable of their reality .and with loftier intentions, and is more moderate than they are

Further, if this limited life is the beginning of an attempt to reach an eternal life that proceeds from this present one, is colored by its style, and has standards that depend on the degree of moderation and loftiness shown in this life, then it is natural to organize the present life in a way [befitting] to the initial stage of a life free from .destruction, and to establish it on both spiritual and material principles

Hence, the issue of faith in God and life's origin in Him is not a purely intellectual issue

unrelated to life and isolated from the fields of life, nor is it something for which separate methods and rules must be enacted, while ignoring and setting aside the .issue of life. Rather, it is an issue related to the mind, to the heart and to life together

Capitalistic democracy itself offers evidence for the relation of faith to life (p. ۲۰) in the idea that this system is presented on faith in the absence of an individual or a group of individuals who have attained a certain degree of infallibility with respect to their intentions, inclinations, opinions and interpretations that makes it possible to entrust them with the social affairs [of the people] and to rely on them

p: ۱۴

.for establishing a good life for the nation

But there is no room for this basis [of faith], nor does it make any sense, except if it is grounded in a purely materialistic philosophy that does not admit the possibility that .the system proceeds from anything other than a limited human mind

Thus, the capitalistic system is materialistic in every sense of the term. It either internalizes materialism, while lacking the courage to declare its being linked to it and based on it; or it is ignorant of the extent of the natural link between the actual and social situations of life. Due to this, capitalistic democracy is devoid of the philosophy on which every social system must rest. In a word, it is a materialistic system, even .though it is not based on a dearly outlined materialistic philosophy

II. The Position of Ethics in Relation to Capitalism

Because the capitalistic system was filled with the spirit of materialism, morality was removed from the picture. It was nowhere to be found in the system. Put more correctly, its notions and criteria underwent a change. The individual interest was declared as the highest objective, and all kinds of freedom as means for fulfilling that kind of interest. This resulted in most of the severe trials, catastrophes, tragedies and .misfortunes that the modern world has experienced

Supporters of capitalistic democracy may defend this system's perspective on the

individual and his personal interests by saying that the individual's aim is in itself a fulfillment of the social interest, and the results that morality achieves by

p: ۱۵

its spiritual principles are achieved in a capitalistic democratic society, yet not by way of morality, but by way of having and serving individual motives. For when a human being performs asocial service (p. ۲۱), he also fulfills a personal interest, since he is a part of the society for whose sake he works.

Moreover, when he rescues the life of an individual in danger, he, too, derives a benefit from that, since the [redeemed] living individual will perform a service for the social organization. Thus, the rescuer regains a portion of this service. Hence, the personal motive and beneficial sense are sufficient for providing and securing the social interests since, in the last analysis, these interests are reduced to personal interests and individual benefits.

This defense is closer to vivid imagination than to evidence. Imagine for yourself if the practical criterion in life for every individual in the nation ware the fulfillment, on the largest scale and for the longest term, of his benefits and personal interests, and if the state provided the individual with freedom, glorified him without reservation or limit, how would these individuals define social action?

Further, how could the linkage of social welfare to the individual suffice for directing an individual to the anions called for by ethical values when many of these actions do not benefit the individual? If, on the other hand, it happens that such actions involve some benefit (to the individual) since he is a member of society, that slight benefit, which is

p: ۱۶

not grasped by a human being except by means of analytical scrutiny, is often rivaled by the absence of immediate benefits or personal interests that find their assured attainment in freedom. Thus, the individual abolishes any ethical scheme or spiritual

.consideration for their sake

III. The Tragedies of the Capitalistic System

If we wished to present the links in the chain of social tragedies that resulted from this system, which is neither well studied, nor philosophically based, there would be no room for doing so in the space designated for the present discussion. Because of this, .we will [only] make a brief allusion to this point

The first of these links is the following. The majority governed the minority, their vital interests and affairs. Political freedom meant that the majority had the prerogative to lay down the system and its laws (p. ٢٢), as well as their management. Let us imagine that the group which represents the nation's majority seizes the reins of power and legislation, and adopts the capitalistic democratic mentality which is purely .materialistic in its orientation, inclinations, purposes and desires

What then would be the fate of the other group? Or what life would you expect for the minority under laws legislated with the majority and the preservation of its interests in mind? Would it be strange for the majority to legislate laws, particularly in light of its own welfare, to neglect the welfare of the minority, and to turn toward fulfilling its desires in a manner unjust to others? Then who would preserve the minority's

p: ١٧

vital structure, and defend it against injustice, if personal interest is the [sole] concern of every individual, and if the majority's social mentality lacks the notion of spiritual ?and moral values

It is natural that under (this) system, the despotic rule continues as before, and that the phenomena of manipulation and neglect of the rights and interests of others persist in the social atmosphere of this system as they did in the old social atmosphere. Put briefly, the difference [between the present and the old systems] is that neglect of human dignity arose [in the older systems] because of individuals in the nation; while in the present system, it arises because of groups that represent majorities in relation to minorities. [But] the totality [of these minorities] constitutes a

.large number of people

I wish the matter ended there. (Had it not gone beyond that) the tragedy would have been less and the stage would have witnessed more laughter than tears. However, the matter became more grave and intense after that, when the economic issue arose in this system. Thus, it determined the economic freedom along the lines .discussed earlier

It allowed various methods and kinds of [acquiring] wealth, regardless of how exorbitant the wealth is, and regardless of how deviant it is in its methods and reasons. It also secured the realization of what it had advocated at the same time as the world witnessed a great industrial revolution, and when science became the product of the birth of the machine

.that changed the face of industry and swept away manual labor and the like

Thus, bountiful wealth came to (p. ٢٣) a minority of the nation's individuals who were given the opportunity to utilize the modern means of production,(١) and who were supplied by unlimited capitalistic freedom that provided sufficient assurances for exploiting these means of production and benefiting from them to a great extent, as well as for destroying many groups in the nation whose industry was swept away and whose lives were shaken by the steam engine, and who found no way to stand steadfast in the face of this storm, as long as the lords of modern industries were armed by economic freedom and the rights to the glorified freedom of these .industries

The scene became the sole province of an elite of the lords of industry and production. The middle class became smaller and grew closer to the general lower class. This left the destroyed majority at the mercy of that elite whose thoughts and .considerations were consistent with the capitalistic democratic method only

It was natural for this wealthy elite to withhold compassion and charity from this large

group of people, in order to keep them in the abyss and deny them a share in the elite's own exorbitant profits. Why should the elite not do so, as long as the ethical criteria are benefit and pleasure; as long as the state secures for them absolute freedom of action; and as long as the capitalistic democratic

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.(Text: wasa'il al-intaj al-hadith (the means of modem production -١

?system has no room for a moral philosophy of life and its specific concepts

The issue must, therefore, be studied in a manner inspired by this system. These powerful persons exploit the majority's need for them, and their life supports. Thus, those who were capable were required to work in the elite's fields and factories for an .extremely long time; and for salaries sufficient only for the necessities of life

This is the pure reasoning of benefit. It was natural for the elite to adopt it, thus .dividing the nation into a group of immense wealth and a majority in the deep abyss

Here, the political right of the nation is crystallized once again in a different form. Even though equality of political rights among individual citizens, for example, was not erased from the records of the system, nevertheless, after such tremors, it was nothing other than a figment of the imagination or a mere thought. For when economic freedom records the results that we have presented, it leads to the .abominable division (p. ٢۴), Mentioned above

Further, it would itself be in control of the situation and of the reins of power, and would overcome the political freedom confronting it. Thus, by virtue of its economic position regarding society, its capacity for utilizing every means of propaganda, and its ability to buy defenders and aids, the capitalistic group has the upper hand over .key positions(١) in the nation

It assumes power in order to exploit it for its own welfare and for the

.Text: tuhaymin 'ala taqalid al-hukm fi al-'umma -١

pursuit of its aims. Legislation and the social system come under the control of capitalism when, according to democratic notions, they are the right of the nation as a .whole

Thus, in the last analysis, capitalistic democracy is reduced to rule by a privileged minority, and to power used by a number of individuals to protect their existence at the expense of others. This they do by means of the benefit mentality which they .derive from capitalistic democratic thought

We arrive now at the most abominable link in the tragedy played by this system. Those gentlemen in whose hands the capitalistic democratic system places full power and to whom it supplies every force and capacity, will extend their vision -inspired by the mentality of this system - to wider horizons. Also, inspired by their welfare and .aims, they will feel in need of new areas of power. Two reasons account for this

First, the availability of production depends on the extent of the availability and abundance of raw materials. Thus, he who has a large share of such materials also has productive capacities that are large and strong. Such materials are spread all over the vast, God-given earth. If it is necessary to obtain them, it is necessary to control .the land that has them, in order to absorb and exploit them

Second, the intensity and strength of the movement of production motivated, on the one hand, by the protection of profit and, on the other hand, by the fall in the standard

of living of many citizens due to the materialistic ambitions of the capitalistic group and its domination over the rights of the general public through their self-interested methods which make the citizens incapable of (p. ٢٥) purchasing and consuming products create big producers who are greatly in need of new markets to sell the surplus products existing in the markets. Finding such new markets means chinking of .a new country

Thus, the issue is studied with a purely materialistic mentality. It is natural for such a mentality whose system is not based on spiritual and moral values, and whose social doctrines admit no ends except those that bring pleasure to this limited life in various delights and objects of desire, to see in these two reasons a justification or a logical formula for assaulting and dishonoring peaceful countries, in order to control their fate and their large natural resources, and to exploit their wealth to promote surplus .products

All of this is reasonable and permissible, according to the notion of individual interests on which the capitalistic system and the free economy are based. From there, gigantic materialism proceeds to raid and fight, to restrict and shackle, to colonize and exploit .in order to please the appetites and to satisfy the desires

Reflect on how much the human race has suffered from the calamities of this system due to its materialistic spirit, form, tactics and purposes. This is so, even though it does not center on a well-defined philosophy which is in agreement with

p: ۲۲

that spirit and form, and concordant with such tactics and purposes, as we have .pointed out

Estimate for yourself the lot of a society established on the basis of this system and its conceptions of happiness and stability. In this society, mutual love and confidence, real merry and compassion, as well as all good, spiritual tendencies art totally absent. Thus, in it the individual lives feeling that he is responsible for himself alone, and that he is endangered by any interests of others that may cash with his. It is as if he is engaged in a constant struggle and a continuous fight, equipped with no weapons other than his personal powers, and provided with no purposes other than his (personal interests. (p. ۲۶

Socialism and Communism .۲

point

There are many schools of socialism. The best-known of these is that which teats on Marxist theory, or dialectical materialism, which expresses a specific philosophy of life .and a materialistic understanding of it along dialectical lines

Dialectical materialists have applied this theory to history, society and economics; and thus, it became a philosophical doctrine concerning the world, a method for studying .history and society, a school of economics and a plan in politics

In other words, it shapes the entirety of humankind into a specific mold, according to the kind of thinking they have, their outlook on life and their practical actions. There is no doubt that the materialistic philosophy, as well as the dialectical method, are not .the creation and innovation of the Marxist school

The materialistic

p: ۲۳

tendency existed in philosophical circles thousands of years ago, revealed at times, while concealed at other times behind sophistry and absolute denial. Similarly, some points of the dialectical method of thinking have deep roots in human thought. All its points were formulated at the hands of Hegel, the well-known idealist philosopher. After that, Karl Marx adopted this [dialectical] method and that [materialistic] .philosophy

He tried to apply them to all fields of life, and achieved two things. First, by the dialectical method, he explained history from a purely materialistic perspective. Second, he claimed to have discovered the contradictions of capitalism and the surplus value that the possessor of money steals from his employees in accordance (with his doctrine.۱)

On the basis of these two achievements, Marx based his faith on the necessity of abolishing the capitalistic system and erecting, instead, the communistic and the socialistic societies (p. ۲۷) which he considered as humankind's [first] step toward a full .implementation of communism

In this philosophy, the social field is one of struggle among contradictions. Every social situation that pervades this field is a purely material phenomenon concordant with the rest of the material phenomena and circumstances, and influenced by them.

However, at the same time, this social situation caries its own contradiction within itself. Then struggle erupts among the contradictions within its contents, until the contradictions accumulate and create a change in this situation and the construction of a new situation. Thus, the battle continues, until all people become of one class, and the

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۱ - We have explicated these theories together with a detailed scientific study in the book Our Economy.

interests of every individual become represented in the interests of this unified class.

At that point, harmony prevails, peace is realized, and all the bad effects of the capitalistic democratic system are removed, because such effects were produced by the existence of multiple classes in society. This multiplicity of classes was, in turn, produced by society's division into producer and employee. Therefore, it is necessary to put an end to this division by means of terminating ownership.

In this respect, communism differs from socialism in some of its principal economic ideas. The communist economy is based on the following. First, private ownership must be canceled and fully obliterated from society. All wealth must be appropriated by everyone and handled by the state, since it is the legal trustee over society, so that the state manages and exploits this wealth for the welfare of the whole population.

The belief of the communistic school in the necessity of this absolute nationalization was a natural reaction to the complications of private ownership in the capitalistic democratic system. Such nationalization was justified on the ground that its purpose was the cancellation of the capitalistic class and the uniting of people in one class, in order than to end the struggle, and to prevent the individual from employing the

various tactics and methods for enlarging his wealth, in an attempt to satisfy his (greed and appease the motive that drives him after personal benefit. (p. ۲۸

Second, goods produced must be distributed in accordance with the individual need

for consumption. This point is summarized in the following text: 'from everyone, in accordance with his capacity, and for everyone, in accordance with his needs'. This is to say that every individual has natural needs deprived of which he cannot survive. He devotes all his efforts to society; in return, society satisfies the necessities of his life .and supports his living

Third, this must be carried out on the basis of an economic plan put forth by the state. In this plan, the state reconciles the needs of the whole population with the quantity, variety and limit of production, in order to prevent afflicting society with the same illnesses and difficulties that occurred in the capitalistic society when absolute .freedom was allowed

I. Deviation from the Communist Operation

The leading authorities of communism who called for this system were unable to implement it with all its features when they seized power. They believed that, in order to implement this system, a development of human thought, motives and inclinations .was necessary

They claimed that there would come a time when personal interests and individual considerations would disappear from the human soul, replaced by a social mentality and social inclinations. With that, a human being would think only of the social welfare, .and would be motivated only for its sake

Because of this, it was necessary, according to the tradition of this social doctrine, to establish prior to that a socialistic system in which people could rid themselves of their present nature and acquire the nature which is consistent with the

communistic system. In this socialistic system, important revisions of the economic .aspect of communism were made

Thus, the primary point of the communist economy - namely, the annulment of private ownership - was changed to a more moderate stand. This stand called for the nationalization of heavy industry, foreign trade, and large domestic trade, as well as the imposition of government restrictions on all of them. (p. ۲۹) In other words, it called for the elimination of large capital to help the advance of simple industries and .trades, and to give individuals power over these industries and trades

This is because the main point of the communist economy clashed with actual human nature to which we have alluded earlier. Individuals began to neglect performing their jobs and activities at work. They also avoided fulfilling their social duties. This was due to the fact that [under this system, they were only] supposed to secure an orderly life .and a satisfaction of their needs

Also, under this system, one was not supposed to perform any work or make any effort for more than this, regardless of its intensity. Why then should the individual make any effort, work hard and earnestly, as long as the result for him is the same ?whether he is lazy or active

Further, why should he be motivated to make happiness available to others, and to bring comfort to them by his own sweat and tears and by the sap of his life and capacities, as long as he does

not believe in any values of life except in those that are purely materialistic? Thus, the .leaders of this school felt obliged to freeze absolute nationalization

They were also obliged to amend the second important point of communist economics. They did this by creating differences among salaries, in order to motivate the employees to become active and to carry out their jobs - apologizing at the same

time that these were temporary differences which would disappear when the capitalistic mentality was abolished and when humankind undergoes further .development

Due to this, they applied continual change, in accordance with their economic methods and socialistic tactics, so that they could avoid the failure of any one method by introducing a new method. However, until now, they have not successfully eradicated all the basic principles of the capitalistic economy. Usurious loans, for example, have not been completely eliminated, even though in reality they are the .basis of social corruption in the capitalistic economy

But none of this means that those leaders were failures or that they were not serious about their teachings or sincere about their doctrine. Rather, it means that they clashed with reality when they came to apply [their ideas]. They found their way full of the contradictory elements that human nature imposes in the face of the revolutionary method of social reform (p. ٨٠) that they preached. Thus, reality forced them to retreat with the hope that the miracle would be accomplished in some near or .distant future

Politically, communism, in the long

p: ٢٨

run, aims to eliminate the state from society when the miracle is accomplished and the social mentality prevails among all people. At that point, everyone will think only of the material interests of the whole society. But before that, when the miracle is not yet accomplished, when people are not yet united in one class and when society is still divided into capitalistic and labor forces, the government must be purely that of the labor force. This would be a democratic government within the limit of the labor .circles, and dictatorial with regard to the general public

They tried to justify this by claiming that a dictatorial labor government was necessary at every stage experienced by humankind with the individual mentality. This is so, for the protection of the interests of the labor class, for the stifling of the

breath of capitalism and for the prevention of capitalism from reappearing on the .scene

In fact, this school, which is represented in socialistic Marxism and then in communistic Marxism, is distinguished from the capitalistic democratic system in that it is based on a specific materialistic philosophy which adopts a specific understanding of life that does not admit any(۱) of the moral ideals or values of life. It also explains life in a way that leaves no room for a creator beyond the limits of nature, nor for .expected retributions beyond the boundaries of the limited material life

This is contrary to capitalistic democracy which, even though a materialistic system, is not established on

p: ۲۹

.(Text: bi -jami' (all -۱

a definite philosophical basis. Materialistic communism believes in proper linkage between the issue of actual life and the social issue, but capitalistic democracy does .not believe in such a linkage, or does not attempt to make it clear

Thus, the communistic school was in reality the outcome of philosophical study. It was tested by experiencing the philosophy on which it was based, and from which it branched out. Judgement of any system (p. ۸۱) depends on the extent of the success .of that system's philosophical notions in understanding and portraying life

From the first glance one casts on the communistic system, it is easy to notice that, whether this system is diluted or complete, its general characteristic is to destroy the individual in society and make him an instrument to be manipulated for the purpose of realizing the general standards that this system presupposes. Therefore, it is exactly the opposite of the free capitalistic system that considers society for the sake of the .individual and subjugates it to his interests

It is as if the individual personality and the social personality were destined in the

traditions of these two systems to clash and to struggle against each other. The individual personality was the winner in the system whose legislation was based on the individual and his specific benefits. Thus, society was afflicted by economic .tragedies that shook its existence and malformed the life of all its people

The social personality was the winner in the other system, which tried to avoid the errors of

p: ٣٠

the former system. Thus, it supported society, and sentenced the individual personality to disappearance and death. As a result of this, individuals were exposed to severe ordeals that abolished their freedom, their personal existence, as well as .their natural rights to choice and thinking

II. Flaws of Communism

In fact, even if the communistic system treats a number of the maladies of the free capitalistic system by means of abolishing private ownership, yet in one respect, this treatment has natural complications that render the price of treatment much too high. This is in addition to difficulties that one encounters in the method of applying this treatment. One cannot employ this method, unless(١) all other methods and .procedures fail

In another respect, this treatment is incomplete and does not ensure the end of all social corruption. This is so because it is not accompanied by a correct diagnosis of the illness and the specification of the point from which evil proceeded and conquered the world under the capitalistic system. That point continued (p. ٨٢) in the communistic school to retain its position with regard to social life. With this, humankind did not win a decisive solution for their big problem, nor did they obtain the remedy that heals .their fits of illness and uproots their bad symptoms

The complications of this treatment are enormous indeed. Its concern is to terminate individual freedom, in order to establish communist ownership in place of private ownership. But(٢) this enormous social transformation is, at least until now, contrary

to general human

p: ۳۱

۱- Perhaps the author means 'even.'

۲- (Text: wa-dhalika li-anna (that is because).

nature - as admitted by its leaders - since the materialistic human being still thinks in terms of himself and considers his interests from his limited individual perspective.

Further, to put forth and try to fulfill a new design for society in which individuals completely melt away and personal motives are totally eradicated requires a firm power that holds the reins of society with an iron hand. Moreover, this power quiets any voice that grows loud, stifles any breath of freedom that circulates in society, monopolizes all the means of propaganda and publicity, imposes limits on the nation that the nation cannot exceed under any circumstances and punishes on the ground of accusation and speculation, so that it does not suddenly lose its grip on the reins of power. This is natural in any system one seeks to impose on a nation, before the mentality of that system matures in that nation, and before the spirit of that system prevails.

Indeed, if the materialistic human being begins to think in a social manner, to consider his interests with a social mentality and to be free of all personal sentiments, private inclinations and psychological effects, is would be possible to erect a system in which individuals melt away. With that, nothing would remain ac the scene except the huge social giant. But the realization of this in a materialistic human being who does not believe in anything except in a limited life, and who does not perceive any sense of life except that

p: ۳۲

of material pleasure requires a miracle that creates heaven in the present life and brings it down from the highest to earth.

The communists promise us this heaven. They await that day in which the factory will put an end to human nature, recreate ideal humankind (p. ٨٨) in thinking and acting even though they do not believe in any idealistic and moral values. If this miracle is .realized, we will then have some words for them

For the time being, to put forth the social design that they seek requires confining individuals to the limits of the idea of this design and ensuring its execution by setting the group that believes in it in charge of protecting it and by taking precautionary measures for its sake, through silencing human nature and psychological effects and .using any means to prevent them from bursting forth

Under this system, even if the individual acquires full insurance and social security for his life and needs because the social wealth supplies him with all of this at the time of need, nevertheless, it would be better for him to obtain this insurance without losing the breath of righteous freedom, without melting away in fire as a person, and .without drowning in a stormy social sea

How could a human being aspire to freedom in any field when he is deprived of the freedom of his life, and when his nourishment is fully linked to a specific organization – considering that economic freedom, as well as freedom

?of life, are the basis of all kinds of freedom

The defenders of this system apologize while asking: 'What would a human being do with freedom, with the right to be critical and to express his views, when he suffers from an abominable social burden? Again, what benefit would he derive from debate and opposition, when he is more in need of good nourishment and a secured life than '?of the protests and clamor with which freedom provides him

Those who put forth such questions do not pay attention to anything other than capitalistic democracy, as if it were the only social cause which rivals theirs on the battleground. Thus, they diminish the value and rights of individual dignity, because

.they see in it a danger for the general social trend

However, it is the right of humankind not to (p. ۳۴) sacrifice any of their essentials or rights as long as it is not necessary for them to do so. Humans had to choose between dignity, which is one of their moral rights, and satisfaction of need, which is one of their material rights. Thus,(۱) they lacked the system that combines both sides and .succeeds in resolving both issues

A human being whose capacities are the objects of extortion by others and who does not enjoy a comfortable life, a fair salary, and security in times of need is one who is .deprived of the delights of life and has no access to peaceful and stable living

Similarly, a human being who lives

.(Text: idha (if -۱

continuously under threat, who is judged on any movement he makes, who is exposed to detention without a hearing and to imprisonment, who is exiled or executed for the slightest mistake he commits is indeed scared and alarmed. Fear .steals away his good life and alarm disturbs its pleasures

The third type of human being, who enjoys a tranquil life and is confident of his dignity and safety, is the pleasant dream of humankind.(۱) But how can this dream be ?realized, and when will is become an actual reality

We have stated above that the communist treatment of the social issue is incomplete, in addition to having the complications to which we have already alluded. Even though it represents human sentiments and emotions that were stirred up by the general social tyranny - thus attracting a group of thinkers to the new solution - nevertheless, these thinkers did not grasp the cause of corruption so that they could eliminate it. Rather, they eliminated something else. Therefore, they were not successful in their .treatment and in achieving a cure

The principle of private ownership is not the cause of the absolute evils of capitalism that shook the happiness and peace of the world. It is not, for example, what imposes unemployment on millions of workers, in order to utilize a new machine that will destroy their industries. This is what (p. ۳۵) happened at the dawn of the Industrial Revolution. Again, the principle of private ownership does not impose a despotic control over the

p: ۳۵

.This is the type that everyone would like to be -۱

.salaries of employees with disregard for their efforts

Further, it does not require the capitalist to damage large quantities of his products for the protection of the price of commodities and the preference for squandering these commodities instead [of using them] to satisfy the needs of the poor. Further still, it does not call upon the capitalise to turn his wealth into profitable capital, multiplying it through interest and through the absorption of the efforts of those who .are in debt, and not through producing or working

Moreover, the principle of private ownership does not drive the capitalist to purchase all the consumer's goods from the markets, so that he can monopolize them and then raise their prices. Finally, this principle does not require that the capitalist open up new markets that may infringe upon, or abolish, the freedom, rights and honor of .nations

None of these fearful tragedies was the result of private ownership. Rather, they were the product of personal, materialistic interest that was made the standard of life in the capitalistic system and the absolute justification of all managements and dealings. A society based on such an individualistic standard and personal justification .cannot be expected to do other than what it actually did

It is from the nature of such a standard that those evils and afflictions proceed to fall upon mankind as a whole, rather than from the principle of private ownership. If such

a standard is changed, and a new, rectified objective of life in accord

with human nature is put forth, the real treatment of the big problem of mankind will .have been accomplished

III. The Correct Explanation of the Problem

In order for us to reach the first part of the explanation of the social problem, we must inquire about the personal, materialistic interest that the capitalistic system established as a criterion, as a justification and as an objective. Thus, we ask: 'What was the idea that validated this criterion in the capitalistic mentality, and what was the source of its inspiration?' For it is this idea which is the real basis of the social afflictions and failure of (p. ۳۶) the capitalistic democracy to achieve human happiness .and dignity

If we are able to kill this idea, we will put an end to all conspiracies against social comfort, and to the unions against the rights and real freedom of society. We will also succeed in exploiting private ownership for the sake of the welfare and development of mankind and for their progress in the industrial fields and areas of production. ?What then is this idea

This idea can be summarized in the limited materialistic explanation of life on which the West erected the powerful edifice of capitalism. If every individual in society believes that his only field in this great existence is his personal material life, if he also asserts his freedom of managing and exploiting this life and in his inability to achieve any purpose in this life other than pleasure which is made available to him by material ,factors; further

if he adds these materialistic beliefs to self-love which is intrinsic to his nature, then he will follow the same path trodden by the capitalists, and will fully carry out their procedures, unless he is deprived of his freedom by an overwhelming power and

.barred from selecting this path

Self-love is the most general and the oldest instinct we know; for all other instincts, including the instinct for life, are branches and subdivisions of this instinct. The self-love that human beings have - by which is meant their love of pleasure and happiness for themselves, and their hatred of pain and misery for themselves - is what drives them to earn their living and to satisfy their nutritional and material needs. That is why a human being may put an end to his life by committing suicide if he finds that bearing .the pains of death is easier for him than bearing the pains with which his life is full

Therefore, the true, natural reality that is concealed behind all human life and that directs life with its own hand is self-love, which we express by our yearning for pleasure and hatred for pain. It is not possible for a human being to carry freely the burden of the bitterness of pain and forgo (p. ٣٧) any pleasures just so that others may have pleasure and comfort, unless his human nature is stripped away from him .and he is given a new nature that does not yearn for pleasure and detest pain

Even

p: ٣٨

the wonderful forms of love which we witness in human beings and about which we hear in their history are in reality subjugated to that principal moving force - the instinct of self-love. A human being may love his child or friend over himself, as he .may make sacrifices for the sake of some ideals or values

However, he would not perform any of these heroic acts, if he did not derive from them a specific pleasure and a benefit that outweighed the loss resulting from his love for his child or friend, or from his sacrifice for the sake of some of the ideals in which .he believed

Thus, we can explain human behavior in general, (as being well-grounded in] the areas of selfishness and [self]-love alike. In human beings, there are many propensities for taking pleasure in a variety of things, such as taking pleasure in

material things exemplified in food, drink, the various kinds of sexual pleasures, and .similar material pleasures

Other examples of similar pleasures are those of the soul, such as moral and emotional pleasures in moral values, in a spiritual companion or in a specific doctrine. These pleasures are felt when human beings find that those values, that companion, or that doctrine are a part of their specific existence. Such propensities that prepare human beings for enjoying those various delights differ in degree from one individual .to the other

They also vary in the extent of their effectiveness, in accordance with the difference in human

p: ۳۹

circumstances and in the natural and educational factors that affect people. While we find that some of those propensities mature in human beings naturally - as does their propensity for sexual pleasure, for example - we find, at the same time, that other forms of propensities may never appear in people's lives. Rather, they await the .educational factors that help their maturation and blossoming

The instinct of self-love, working behind all these propensities, determines human behavior in accordance with the extent of the maturity of those propensities. Thus, it drives a human being to give himself exclusive access to food when somebody else is hungry. And it is the same propensity that drives another human being (p. ۳۸) to .deprive himself of food in order to give someone else exclusive access to it

This is because the propensity of the former for taking pleasure in the moral and emotional values that drives him to this love was latent. The educational factors which help this propensity focus and grow were not open to him. The latter, on the other hand, has acquired this kind of education. Thus, he takes pleasure in the moral and .emotional values, and sacrifices the rest of his pleasures for their sake

Whenever we wish to create any change in human behavior, we must first change the

human notion of pleasure and benefit, and then place the behavior desired in the .general frame of the instinct of self-love

If the instinct of self-love occupies in the present life of humankind

the position [already mentioned], if the self, according to the view of people, is an expression of a limited material power, and if pleasure is an expression of the delights and joys that matter makes available, then it is natural for people to feel that their opportunity for profit is limited, and that the race for their goal is short, and that their .goal in this race is to acquire a certain amount of material pleasure

Further, the way to this acquisition is, as a matter of fact, confined to the nerve of the material life - that is, to money - which opens the way for human beings to realize all their objectives and desires. This is the natural succession in the materialistic notions .which leads to a complete capitalistic mentality

Now, do you think that the problem can be decisively solved if we reject the principle of private ownership and retain these materialistic notions of life, as did those thinkers? Again, is it possible for society to be delivered from the tragedy of such notions and to attain secure happiness and stability by the mere elimination of private ?ownership

Take into consideration that securing its happiness and stablity depends, to a great extent, on securing the non-deviation of those personalities in charge of carrying out their reformative programs and objectives in the fields of work and execution. (p. ۳۹) Those who are in such positions are supposed to uphold the same purely materialistic notions of life on which capitalism was

.established

The difference, though, [between them and the capitalists] is that they laid these

notions in new philosophical molds. [In accordance with their teachings], it is reasonable to assume that quite often personal interest stands in the way of social interest, and that the individual fluctuates between a loss and a pain which he bears for the sake of others, and a profit and a pleasure which he enjoys at the expense of others. What security would you estimate there is for the nation and its rights, for the ?doctrine and its objectives, under such trying times as the rulers face

Personal interest is not represented in private ownership only, so that the cancellation of the principle of private ownership would destroy our above-mentioned assumption. Rather, personal interest is represented in [various] procedures, and takes on different forms. The evidence for this can be seen in the revelations made by the present communist leaders concerning acts of treason committed by earlier rulers .and the consolidation of these earlier rulers around the objectives they had adopted

The capitalistic group controls the wealth [of the nation], under the auspices of economic and individual freedom, and manages this wealth with its own materialistic mentality. [Similarly], when the state nationalizes the whole wealth and eliminates private ownership, the wealth of the nation is handed to the same state organization which consists of a group adopting the same materialistic notions of life and imposing on people the priority of personal interests, by virtue of the judgement

p: ۴۲

of the instinct of self-love which denounces a human being's renunciation of personal .pleasure or interest without any compensation

As long as the material interest is the power in control due to the materialistic notions of life, it will ignite once again the battleground of struggle and competition, and .expose society to various kinds of danger and exploitation

Thus, all the danger for mankind lies in these materialistic notions and in the standards of goals and actions that proceed from these notions. Unifying the capitalistic wealth, be it small or large, into one large unit of wealth whose management is handed to the state - without any new development (p. ۴۰) of the

human mentality -does not alleviate this danger. Rather, it makes all people employees of one and the same company, and ties their lives and dignity to the .directors and owners of that company

Admittedly, this company differs from the capitalistic company in that the owners of the latter are those who own its profits, and spend them in any manner dictated by their desires. The owners of the former company, on the other hand, do not own any of this, according to the teachings of the system. However, the fields of personal interest are still open to them, and the materialistic notion of life, which posits this .interest as a goal and as a justification, is still upheld by them

The Islamic System: the Proper Treatment of the Problem ۳. ۱۹

point

The world has two options for driving off the above-mentioned danger and for .erecting the principles of a stable society

p: ۴۳

The first option is to replace the present human nature by another nature -that is, to create in people a new nature that makes them sacrifice their personal interests and the material acquisitions of their limited lives for the sake of society and its interests. They do this with the conviction that there are no values other than material values, .and no gains other than the gains of this limited life

This can be accomplished only if self-love is stripped away from the heart of their nature and is replaced by social love. Thus, human beings would be born without self-love, except inasmuch as they constitute a part of society, and without taking pleasure in their happiness and interests, except inasmuch as their happiness and interests represent an aspect of the general happiness and the social interests. The instinct of social love would then insure in a mechanical manner and procedure effort-making in the direction of achieving social interests and fulfilling social requirements.

The second option open to humankind for eliminating the danger threatening the

present and future human generations is to develop people's materialistic notion of life. (p. ۴۱) With such a development, human goals and standards would naturally .develop, and the miracle would be accomplished in the easiest way possible

The first option is the one that the communist leaders dream of realizing for the future human race. They promise the world that they will reconstruct mankind in such away as to enable thorn to move mechanically in the service of

p: ۴۴

.society and its interests

Further, in order to accomplish this great deed, we must entrust them with world leadership, as one would encrust the surgeon with the fate of the patient and delegate to him the cure of the patient, the amputation of the sick parts of his body and the readjusting of the misaligned parts. No one knows the length of time required .for such an operation, which places mankind under the surgeon's dissecting knife

People's surrender to that operation is the greatest evidence for the extent of the injustice they have suffered under the capitalistic democratic system, which, in the last analysis, deceived them with alleged freedom, stripped them of their dignity, and sucked their blood in order to serve it as a tasty drink to the representative ruling .group

The idea of this point, which advocates treating the problem by developing and reconstructing human nature, relies on the Marxist notion of self-love. Marxism holds that self-love is neither a natural inclination nor an instinctive phenomenon in the human nature. Rather, it is a product of the social condition that rests on the ground .of private ownership

The social condition of private ownership is what constitutes the spiritual and internal content of the human being, and creates in the individual his love for his personal interests and individual benefits. Thus, if a revolution occurred with regard to the principles on which the social structure is established, and if private ownership were

replaced by social and socialistic ownership, the revolution

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.would be reflected in all aspects of society and in the innermost being of people

With this, the individual feelings of a human being would be turned into social feelings, and his love for his personal interests and benefits into a love for the social benefits and interests. This would be in accordance with (p. ۴۲) the law of concordance between the state of basic ownership and all the superstructural phenomena that are .regulated in accordance with the ownership

In fact, this Marxist notion of self-love views, in a reverse order, the relation between individual reality (the instinct of self-love) and social conditions. If this were not so, then how could it hold that the individualistic motivation is the product of private ?ownership and class conflicts that result from this kind of ownership

But if people did not already have individualistic motivation, they would not have created such conflicts, nor would they have thought of private ownership and exclusive personal possessions: Why would a human being seek exclusive power over the acquisitions of the system and employ this power in a manner that preserves his interests at the expense of others, if he does not deeply feel an individualistic ?motivation

In reality, the social manifestations of selfishness in the economic and political fields are nothing but a result of individualistic motivation which in turn is a result of self-love. Thus, this kind of motivation is deeper in human nature than the social phenomena of selfishness.(۱) Hence, it is impossible to remove

p: ۴۶

In other words, self-love is responsible for the individualistic motivation which, in -۱ turn, is responsible for the social manifestations of selfishness in both the economic .and political fields

it and root it out by removing those manifestations. An operation of this sort is simply a substitution of certain manifestations by some other manifestations that may differ .from them in shape and form, but agree in substance and reality

Add to this that if we explain objectively the individualistic motivation, [which is the result of] the instinct of self-love,(۱) as a reflection of the phenomena of individualism, such as the phenomenon of private ownership in the social system (as Marxism does) this would not mean that, by the removal of private ownership, the individualistic motivation will lose its objective source, as well as its cause, which is grounded in the .social system

This is because, even though it is a phenomenon marked by the individualistic character, nevertheless it is not the only one of its kind. There is, for example, the .phenomenon of private administration which is retained even in the socialistic system

For even though the socialistic system eliminates private ownership of the means of production, still it does not eliminate the private administration of these means by members of the ruling group who practice (p. ۴۳) the proletarian dictatorship, and monopolize the supervision over all the means of production as welt as over the .management of them

After all, it is not possible that at the time of their nationalization the means of production can be administered by all the individuals of society in a collective and .socialistic manner

Therefore, the socialistic system retains prominent individualistic phenomena. It is natural

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۱ - The text here identifies individualistic motivation with the instinct of self-love. But since the previous discussion shows that, according to the author, the former is caused by the latter rather than identified with it, we chose to break the identification

.by inserting what is within the brackets

for these individualistic phenomena to preserve the individualistic motivation and to reflect it continuously in the innermost human nature, as did the phenomenon of .private ownership

Thus, we now know the value of the first option for solving the problem that is, the communistic option which considers the cancellation of legislating private ownership and its removal from the legal records as alone sufficient for developing human (nature and solving the problem.(١

Regarding the second option discussed earlier, it is the option pursued by Islam, due to its conviction that the only solution for the problem is to modify the human materialistic notion of life. Thus, Islam did not begin with the cancellation of private .ownership

Rather, it assaulted the materialistic notion of life and posited, instead, a new notion of life. On the basis of this new notion, Islam established a system in which the individual is not considered as a mechanical tool in the social system, nor society as an organization established for the sake of the individual. Rather, is gave to each - the individual and society -their rights and insured for the individual both his spiritual and .material dignity

Islam put its finger on the real source of the illness in the social system of democracy and in other similar systems. Thus, is eradicated this source in a manner concordant with human nature. [According to Islam], the basic central point due to which human life was crowded with various kinds of misery and different forms of tragedy is the materialistic

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The text reads: 'for solving the problem and developing human nature'. We made -١ the switch in conformity with the spirit of the discussion, according to which, the .development of human nature is a precondition for the solution of the problem

view of life which we can summarize in the following brief statements. 'The assumption of human life in this world is all that should count. Further, personal '.interest should be set up as the standard of all action and activity

According to Islam, capitalistic democracy is a system destined for definite collapse and failure; however, this not by reason of the claims of the communist economy concerning the contradiction (p. ۴۴) that are natural to the capital and the destructive factors inherent in private ownership. This is because Islam diverges from the notions and dialectical method of such a claim in its logical method, in its political economy and .in its social philosophy

This was pointed out in the book Iqtisaduna (Our Economy). It insures the placing .individual ownership in a social plan free from those alleged contradictions

According to Islamic doctrine, the failure and painful condition that afflicted capitalistic democracy can be ascribed to the purely materialistic notions of this kind of democracy. People cannot be happy under a system whose essence is drawn from such notions and whose general ideas are derived from the spirit of these notions and .at their directions

It is necessary, therefore, to be assisted by something other than the materialistic notions of the universe from which the social system can be drawn. It is also necessary to have sound political awareness based on sound notions of life, upholding the greatest human cause, making an effort to achieve this cause on the basis of these notions, and

p: ۴۹

.studying the world problems from this point of view

When this sort of political awareness is fully achieved in the world, when it prevails over every other political awareness, and when is assaults every notion of life that does not agree with its main principle, it becomes possible for the world to enter a .new life shining with light and full of happiness

This profound political awareness is the real message for peace in the world. Further, this message for salvation is the eternal message of Islam which drew its social system - that differs from any ocher system we have discussed - from a new .ideological principle of life and the universe

By means of this ideological principle, Islam provided human beings with the cornet view of life. Thus, it made them believe that their lives proceed from a principle which is absolutely perfect, and that their lives prepare them for a world free from hardship and misery. Besides, Islam set up a new moral criterion for human beings (p. ۴۵) [with which they may evaluate] all the steps they take and all the stages they cross, this .criterion being the satisfaction of God, be He exalted

Therefore, not everything dictated by personal interest is permissible, and not everything that leads to a personal loss is prohibited and in bad taste. Rather, the goat that Islam set up for human beings in their lives is the divine satisfaction, and the moral criterion by means of which all actions must be weighed

is only a measure of this glorified goal that these actions can achieve. The righteous human being is one who achieves this goal. And the complete Islamic personality is the one which, in its various advances, moves by the guidance of this goal, in light of .this criterion and within its general scope

This transformation of people's moral notions, criteria and objectives does not signify a change in human nature and a new development of it, as was intended by the communist idea. For self-love -that is, the love that a human being has for himself - as well as the fulfillment of the specific desires of this self, are natural to human beings. We do not know of any inductive reasoning in any empirical field clearer than the inductive reasoning experienced by people in their long history that proves the .essential character of self-love

Indeed, if self-love were not natural and essential to humankind, earlier human beings (that is, those who lived before any social formation) would not have been

driven to satisfy their needs, to repel dangers from themselves, and to pursue their desires through primitive methods by means of which they preserved their lives and continued their existence. This resulted in their plunging themselves into a social life and merging in relations with others for the purpose of fulfilling those needs and .repelling those dangers

Since self-love enjoys such a [prime] position in the human nature, what decisive solution for the great human problem must be established on the

p: ۵۱

basis of accepting this reality? If such a solution is based on the notion of the development of this reality or on overcoming it, then it is an idealistic treatment for (which there is no room in the practical realm of human life. (p. ۴۶

I. The Message of Religion

Here, religion delivers its greatest message, whose burdens cannot be carried except by it, and whose constructive objectives and well-guided goals cannot be realized except on its bases and principles. Thus, religion ties together the moral criterion which it lays down for people and self-love which is centered in their nature. In other words, religion unifies the natural criterion of action and life - this criterion being self-love - and the criterion that must be laid down for action and life; so that it can ensure .happiness, comfort and justice

The natural criterion requires that the human being advance his personal interests over the interests of society and the elements of its solidification. [But] the criterion that must be the judge and that must prevail is the criterion in accordance with which all interests are equal, and in accordance with whose notions, individual and social .values are of equal weight

How then can the two criteria be reconciled, and how can the two scales be unified, so that human nature in the individual is once again one of the factors leading to the happiness and goodness of society, this nature having been a cause of tragedy with ?inclinations skilled ac producing different forms of selfishness

The reconciliation and

p: ۵۲

unification occur through a process that religion ensures for forlorn humankind. This process takes one of two forms. The first form focuses [on] a realistic explanation of life, and on spreading the understanding of life in its real form, as an introduction that prepares the way for the second life in which the human being achieves happiness .proportional to his efforts in this limited life to attain God's satisfaction

Hence, the moral criterion, or God's satisfaction, be He exalted, ensures personal interest, while at the same time is achieves its greatest social objectives. Therefore, religion guides the human being to participate in establishing a happy society, and in preserving the issues in society that are concerned with justice and that help attain God's satisfaction, be He exalted. (p. ۴۷) This is part of his personal profit, as long as every action and every activity in this area are compensated for by the greatest and .most splendid rewards

According to religious notions and explanation of life, society's problem is the same as that of the individual. But this form of reconciliation cannot be held in a materialistic view of life. This kind of outlook views people as naturally not attentive to anything other than their present involvement and their limited life. This is contrary to the realistic explanation of life which Islam offers. The latter explanation broadens the horizon of a human being. It imposes on him a more profound view of his interests and benefits. In the last analysis, this profound view

p: ۵۳

:turns fast loss into real profit, and fast profits into real loss

(He who does right it is for his soul, and he who does wrong it is against his soul.(۱

He who does right, whether male or female, and is a believer will enter Paradise (where he will be provided for, without restriction.(۲

On that day, people will proceed in scattered groups to see their deeds. He who does good an atom's weight will see it then, and he who does evil an atom's weight will see (it then.(۳

That is because no thirst, hardship or hunger afflicts them on the path of God. They do not take any step that harms the disbelievers. And they do not gain anything from the enemy; but, by virtue of that, a good deed is recorded for them. God does not lose the wages of the good. They do not spend anything, be that small or large, nor do they cross any valley; but it is recorded for them that God will repay them the best of what (they had done.(۴

These are some of the beautiful images that religion offers as examples of the first form that the above-mentioned process can take on, and that religion pursues in its .attempt to reconcile the two criteria and to unify the two scales

Thus, it builds a link between personal motives and the paths leading to good in life. It also modifies the interest of individuals (p. ۴۸) in such a way as to make

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.Al-Qur'an, XLI, ۴۶ -۱

.Al-Qur'an, XL, ۴۰ -۲

.Al-Qur'an, XCIX, ۶, ۷, ۸ -۳

.Al-Qur'an, IX, ۱۲۰, ۱۲۱ -۴

individuals believe that their personal interests and the real general human interests - (as defined by Islam - are interrelated.(۱

The second form that religion adopts for the purpose of reconciling personal motivation with social values and interests is its attempts to offer a specific moral education concerned with the spiritual nourishment of human beings and their emotional growth and moral sentiments. For, as we have mentioned earlier, there are in human nature capacities and dispositions for various inclinations. Some of these inclinations are of the material type, the desires for which open up naturally, such as

.the desire for food, the desire for drink, and the desire for sex

Other such inclinations are of the spiritual type. These sprout and grow as a result of education and commitment. Because of this, it is natural for people, if left to themselves, to be dominated by the material inclinations, for such inclinations open up naturally; while the spiritual inclinations and their dispositions that are latent in the soul remain concealed.

By virtue of believing in an infallible leadership guided by God, religion entrusts the matter of the education of human beings and the growth of their spiritual inclinations to this leadership and to its branches. As a result of this, a number of noble emotions and sentiments develop. Human beings begin to appreciate moral values and the ideals that religion teaches them to respect, to desire defiance of death for their sake and to eliminate any of their own

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.See Our Economy, p. ۸۰۸ -۱

.interests or benefits that stand in the way of these moral values and ideals

This does not mean that self-love must be eliminated from the human nature. Rather, action for the sake of such values and ideals would be a complete fulfillment of the will to self-love. For, due to religious teachings, values become desirable to people. The realization of the desirable object itself expresses a specific personal pleasure. Thus, the very nature of self-love dictates the pursuit of the desirable moral values, for the purpose of achieving a specific pleasure pertaining to moral values.

These are the two ways in which the linkage of the moral issue to the individual issue occurs. (p. ۴۹) The former can be summarized in giving a realistic explanation of an eternal life, not in order that human beings lose interest in the present life, nor in order that they yield to wrongdoing and settle for what is unjust, but in order to regulate themselves by the proper moral criterion supplied with sufficient assurances by this explanation.

The latter can be summarized in the moral education which produces in the human soul various emotions and sentiments that ensure the operation of the moral criterion by inspiration from the self. Thus, the spiritual comprehension of life and the moral education of the soul are, in the teachings of Islam, the two causes that together treat .the deeper cause of the human tragedy

Let us always express the understanding that the present life is a preparatory stage for

an eternal life through the spiritual understanding of life. Let us also express the .feelings and sentiments that moral education nourishes a moral sense of life

The spiritual understanding of life and a moral sense of life are the two principles that are the ground of the new moral criterion which Islam lays down for humankind. This criterion is the satisfaction of God, be He exalted. The satisfaction of God that Islam erects as a general criterion in life is that which steers the human ship to the shore of .righteousness, goodness and justice

Thus, the basic distinguishing feature of the Islamic system is represented in its being .based on a spiritual understanding of life and a moral sense of life

A major point of this system is the taking into consideration of both the individual and society, and the securing of a balance between life of the individual and social life. The individual is not considered the central principle in legislating and governing, nor is the large social existence the only thing to which the state pays attention and for whose (sake it enacts its laws. (p. ۵۰

Any social system not proceeding from such an understanding and such a sense is either a system that goes along with the individual and his personal inclinations -thus exposing social life to the harshest complications and the most intense dangers - or a system that confines the individual's inclinations to himself, paralyzing his nature for .the purpose of protecting society and its interests

,With this

p: ۵۷

bitter and continuous struggle arises between the system and its laws [on the one hand], and the individuals and their inclinations [on the ocher hand]. Indeed, the social existence of the system becomes constantly exposed to relapses at the hands of its own creators, as long as they, too, have personal inclinations, and as long as these inclinations find for themselves - by virtue of suppressing ocher personal inclinations and by seizing total power - wide opportunity and a unique field for advance and .exploitation

Any spiritual understanding of life and any moral sense of life that do not result in a complete system of life in which every part of society is taken into consideration, and every individual is given the freedom that is rectified by this understanding and this sense, and that the state determines in the cases of deviation from this understanding and this sense, I say that any doctrine that does not produce this sort of system for mankind does not do anything beyond rendering the atmosphere .amiable and reducing the [weight of] calamities

It is not a definite treatment and a derisive judgement of the illnesses and evils of society. A solid social edifice must be established only on a spiritual understanding of life and a moral sense of life, proceeding from both of them to fill life with the spirit of this sense and the essence of that understanding. This is Islam, expressed in the .briefest and most beautiful statement

It is a spiritual and a

p: ۵۸

moral doctrine from which a complete system for mankind proceeds, sketching for them their clear and well-defined advance, setting up for them the highest goal of this .advance, and making known to them their gains from that goal

As for terminating the spiritual understanding of life, stripping mankind of its moral

sense of life, and considering moral notions as pure illusions created by material interests, and the economic factor as the creator of all values and ideals -and after that, desiring happiness and social stability for mankind - it is (p. ۵۱) a wish that cannot be fulfilled unless mankind is transformed into mechanical systems, organized by a .number of technical engineers

Further, having people operate in accordance with the principle of this spiritual understanding of life and this moral sense of life is not a hard job. In human history, religions have fulfilled their mission in this domain. For all the spiritual notions, moral sentiments, and noble feelings and emotions, there is no clearer and more logical explanation than that which bases its principles and fundamentals on the great efforts that religions have made to educate mankind, to show them their natural .motivation and the life and actions they must pursue

Islam carried the torch that overflows with light after mankind reached a specific degree of awareness. Thus, it advocated spiritual and moral principles on the largest scale, and for the longest term. On the basis of these principles, it raised the human banner, and established an ideological state that seized the

p: ۵۹

reins of world power for a quarter of a century. It aimed at uniting all people and .rallying them around one ideological principle that offers a way and an order of life

Therefore, the Islamic state has two functions. The first is to educate mankind in accordance with [its] ideological principle, and to impress its own character on their tendencies and feelings. The second is to observe them externally, and to bring them .back to the principle if they deviate from it in practice

Because of this, the political awareness of Islam is not limited to the formal aspect of social life. Rather, it is a profound political awareness due to a general and complete outlook on life, the universe, society, politics, economics and ethics. This .comprehensive outlook is the complete Islamic awareness

Any other political awareness is either a shallow awareness that neither views the world from a specific perspective, nor sets its notions on a specific focal point, (p. ۵۲) or an awareness that investigates the world from the point of view of pure matter .that provides mankind with struggle and misery of all forms and types

II. A Final Point

Lastly, at the end of our investigation of the four social schools, we reach the following conclusion. The basic problem that causes all the social evils and that results in various kinds of misdeeds is only given the proper treatment that determines such maladies, and roots them out of the human social body, by the Islamic social school, to the exclusion of other schools. It

p: ۶۰

is necessary, therefore, to inquire about Islamic philosophical convictions concerning .life, the universe, society and the economy

We must also inquire about its legislation and procedures, in order to acquire the complete outline of Islamic awareness and comprehensive Islamic thought, comparing these Islamic convictions to other forms of conviction regarding the .procedures they pursue and the doctrines they adopt

It is natural that our investigation of any conviction begins with an investigation of the basis of the general doctrine of life and the universe, as well as the method of understanding both the universe and life. The notions of any conviction regarding life and the universe form the basic structure of the substance of that conviction. The primary criterion for testing a conviction is experience of the basic ideological principles on whose limit and soundness of judgements the judgements and success .of the superstructures depend

We will therefore reserve the first portion of this work of ours for an investigation of the primary structure, the point from which our conviction proceeds. The superstructures will be investigated in the remaining portions of this work, God willing, .exalted be He

The capitalistic democratic system does not proceed from a specific doctrine concerning life and the universe, nor is it built on a complete understanding of the values of life that are related to, and have influence on, social life. For this reason, the capitalistic democratic system is not a conviction in the real sense of the term. This is because a conviction is a doctrine

(in life from which a system for life proceeds. (p. ۵۳

As for Marxist communism and socialism, they are established on an ideological principle which is the philosophy of dialectical materialism. Islam, on the ocher hand, reserves for itself an ideological principle of life that has its own method of .understanding life and its specific scales

We stand, therefore, between two philosophies that we must study, in order to find the sound ideological principle of life on which we muse establish our social and political awareness of the affairs of the whole world, and our social and political criteria by means of which we measure the values of actions and weigh human .events in instances of national and individual difficulties

The principle on which a conviction rests involves a method and an idea; that is, it involves a determination of the method of thinking and a determination of the notion of the world and of life. Since our purpose in this book is not philosophical studies for their own sake, but rather the study of the rational principles of convictions, we will limit ourselves to a study of the two basic factors pertaining to every rational principle .from which a system proceeds

These two factors are the method of thinking, and the philosophical notion of the world. These two matters are the focus of the discussion in this book. Since it is necessary to determine the method before forming the notions, we will then begin with the theory of knowledge that involves a

determination of the [identifying] marks, method and value of thinking. This will be followed by a study of the general philosophical notion of the world in general.

It is better that the dear reader knows at the outset that the benefit that lies at the heart of Islam is the method and the notion - that is, the rational method of thinking and the theological notion of the world. As for the various methods of demonstration and kinds of proof for this or that matter, we do not add all of them to Islam. Rather, they are the product of intellectual studies by prominent thinkers among Muslim scholars and philosophers.

Part One: The Theory of Knowledge

Chapter One: The Primary Source of Knowledge

point

Sharp philosophical discussions renter on human knowledge, and these discussions occupy a central position in philosophy, especially in modern philosophy. Knowledge is the starring point of philosophical advance toward establishing a solid philosophy of the universe and this world. As long as the sources of human thought, its criteria and its values, are undetermined, it will not be possible to carry on any study, regardless of its kind.

One of the above-mentioned wide discussions is that which handles the sources and primary origins of knowledge through investigations, studies and attempts to discover the primary principles of the powerful intellectual structure with which the human race is endowed. Thus, it responds to the following questions: 'How did human beings come to know? How was their intellectual life formed, including all the thoughts and notions it possesses? And what is

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the source that provides them with this stream of thought and knowledge?'

Every human being knows numerous things in his life, and numerous forms of thought and knowledge are expressed in his soul. There is no doubt that many kinds of human

knowledge grow out of each other. Thus, in forming new knowledge, a human being is assisted by previous knowledge. The issue is to be able to put our finger on the primary threads of thought and on the common source of knowledge in general.

To begin with, we must know that in the main, perception is divided into two kinds. One of them is conception.(۱) This is simple knowledge.(۲) The ether is assent.(۳) (p. ۵۸) This is knowledge involving a judgement.(۴) Conception is exemplified in our grasp(۵) of the idea of heat, light or sound. Assent, on the other hand, is exemplified in our judgement(۶) that heat is a power derived from the sun, that the sun is more luminous than the moon, and that the atom is susceptible to explosion.(۷)

We begin now with a study of human conceptions, concentrating on their sources and causes. After that, we will take up assent and knowledge.

۱. Conception and Its Primary Source

point

By the term 'primary', we mean the real source of simple conceptions or simple knowledge. The human mind contains two kinds of conceptions. One of them is simple conceptual ideas, such as the ideas of 'existence', 'unity', 'heat', 'whiteness', and similar single human conceptions.

The other is composite ideas, which are the conceptions that result from

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۱- At-tasawwur (form, grasping, imaging, apprehension, conception).

۲- At-tasdiq (belief, judgement, assent).

۳- That is, knowledge with no judgement. This is to say that conception is the grasping of an object without a judgement.

۴- Compare this with Ibn Sina's notion of conception and assent in Ibn Sina, Remarks and Admonitions, Part One, Logic, translated by Shams C. Inati, Toronto, Ontario, Canada, Pontifical Institute of Mediaeval Studies, ۱۹۸۴, pp. ۵-۶ and ۴۹-۵۰.

۵- Text: ka-tasawwurina, which we have chosen to translate here as 'grasping', rather

than as 'conception', as we are doing for the most part in this work. This is because it .would not be helpful to say that conception is exemplified in conception

Text: ka-tasdiqina, which we have chosen to translate here as judgement', rather -۶ .'than as 'assent' in order to explain better what is meant by 'assent

Some of the empiricist philosophers, such as John Stuart Mill [۱۸۰۶-۷۳], have held a -۷ specific theory of assent in which they attempt to explain assent as two associated conceptions. Thus, assent [according to them], can be attributed to the laws of the association of ideas. The content of the soul is nothing other than the conception of a subject and the conception of a predicate. However, the truth is that the association of ideas is completely different from the nature of assent, for it can be attained in many areas where there is no assent. For example, the conception in our minds of historical figures to whom myths attribute various kinds of heroism is linked to the conception of those heroic acts. The [two] conceptions are then associated; still, we may not assent to any of those myths. Assent, therefore, is a new element distinguished from pure conception. The lack of distinction between conception and assent in a number of modern philosophical studies has led to a number of errors. It also made a number of philosophers investigate the issue of the justification of knowledge and perception without distinguishing between conception and assent. You will know that the Islamic theory [of knowledge] distinguishes between the two .and explains the issue in each of them by a specific method

a combination of simple conceptions. Thus, you may conceive 'a mountain of soil', and then conceive 'a piece of gold'. After that, you combine these two conceptions. Thus, deriving from this combination a third conception which is (p. ۵۹) 'a mountain of gold'. This third conception is in reality composed of the previous two conceptions; hence, .all composite conceptions are reduced to simple conceptual units

The issue under consideration is the attempt to know the real source of these units and the cause of the arising of these simple conceptions in human knowledge. This issue has an important history in the various stages of Greek, Islamic and European philosophy. Throughout the history of philosophy, it received a number of solutions. .These solutions can be summarized in the following theories

I. The Platonic Theory of Recollection

This theory states that knowledge is a function of the recollection of previous information.(۱) Plato was the founder of this theory. He based it on his specific philosophy of the archetypes.(۲) He believed that the soul has a prior existence. Thus, he believed that prior to the existence of the body, the human soul had existed independently of the body. Since the soul's existence was completely free from matter and its restrictions, it was possible for it to be in touch with the archetypes - that is with the realities that are free from matter.

Thus, it was also possible for is to know them. However, when it became necessary for the soul to descend from its immaterial world in order to be

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۱- For the theory of knowledge as recollection, see Plato, Meno ۸۱ c, ۸۵d, ۹۸a; Philebus ۸۴c; Theaetetus ۱۹۸d.

۲- The Platonic archetypes are also referred to as 'forms' or'ideas'. They are models of things. They are immaterial, fixed, primary realities, separate, indivisible, unchangeable and incorruptible.

conjoined to the body and linked to it in the world of matter, this caused it to lose all its knowledge of the archetypes and fixed realities, and to forget them completely.

But the soul can begin to retrieve its knowledge by means of the sense perception of specific ideas and particular things. This is because all such ideas and things are shadows and reflections of those eternal archetypes and realities that are everlasting in the world in which the soul had lived. When is perceives a specific idea, it immediately moves to the ideal reality that it had known before it became attached to the body.

On this basis, our knowledge of the universal human being -that is, the universal idea of a human being - would be nothing but a recollection of an abstract reality that we had forgotten. Indeed, we remember it only due to our sense perception of this or

that specific human being (p. ۶۰) who reflects that abstract reality in the material world. Thus, universal conceptions are prior to sense perception. And perception is not realized except through the process of retrieving and recollecting such universal conceptions. Rational knowledge is not related to particular things in the sensible .realm. Rather, it is only related to those abstract universal realities

This theory is based on two philosophical propositions. One of them is that the soul exists prior to the existence of the body in a world higher than matter. The other is that rational knowledge is nothing but

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knowledge of the fixed abstract realities in that higher world - the Platonic technical .'term for these realities being 'archetypes

Both propositions are false, as was pointed out by critics of Plato's philosophy. For the soul, in the rational philosophical sense, is not something that exists in an abstract form and prior to the existence of the body. Rather, it is the result of a substantial movement in matter. The soul begins with this movement as material, characterized by material qualities and subjugated to the laws of matter. By means of this movement and process of completion, it acquires an immaterial existence not characterized by material qualities and not subject to the laws of matter, even though .it is subject to the general laws of existence

This philosophical notion of the soul is the only one that can explain the [present] issue, and give a reasonable clarification of the relation between the soul and matter or the soul and the body. As for the Platonic notion, which supposes that the soul has an existence prior to that of the body, it is most incapable of explaining this relation, of justifying the link that exists between the soul and the body, and of clarifying the .circumstances under which the soul falls from its own level to that of matter

Besides, it is possible to explain rational knowledge - with the notion of the archetypes put aside in the field of discussion - (p. ۶۱) by the explanation given in Aristotle's philosophy: namely, that

the sensible ideas are the same as the universal ideas that the mind knows after is abstracts them from the proper qualities of individuals, and retains the common idea. The universal human being chat we know is not an ideal reality that we had previously seen in a higher world. Rather, he is the form of this or that human being, after it has been subjected to the process of abstraction by means of which the universal idea is (extracted from it. (p. ۶۲

II. The Rational Theory

This theory was adopted by a number of prominent European philosophers, such as Descartes,(۱) Kant(۲) and others. It can be summarized in the belief that there are two sources of conceptions. One of them is sense perception. Thus, we conceive 'heat', 'light', 'taste' or 'sound' due to our sense perception of all of that. The other is the innate nature. This is to say that the human mind possesses ideas and conceptions that are not derived from the senses, but are fixed in the innermost being of the .innate nature

Thus, the soul draws [certain ideas] from itself. According to Descartes, these innate conceptions are the ideas of God, the soul, extension and movement, as well as the ideas that resemble them, and are characterized by complete clarity in the human mind. And, according to Kant, the whole field of conceptual human knowledge and science - including the two forms of time and space, as well as the twelve .categories,(۳) for which Kant is known - is innate

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Rene Descartes, French philosopher (۱۵۹۶-۱۶۵۰). Descartes reminds us of al-Ghazali -۱ who, in search of certain knowledge, began by doubting everything. But if he doubts everything, he must exist in order to doubt; for doubting is a form of thinking, and to think is to exist. 'I think, therefore, I exist' is the first proposition of which he becomes

certain. Later, he reaches the knowledge that God exists from the certainty of his knowledge of his self. But by definition God is good. Therefore, He cannot be a deceiver. Hence, the ideas about the existence of an external world that He causes in us must be true. Also a known view of Descartes is that concerning the duality of soul and body. Because the soul is independent of the body, it can survive without it after their separation. Hence, immortality is possible. His main writings are Discourse on Method, The Meditations, Principles of Philosophy, The Passions of the Soul and Ruler for the Direction of the Mind.

۲- Immanuel Kant, German philosopher (۱۷۲۴-۱۸۰۴). Kant's position was a synthesis of the rationalism and empiricism of the day. In his masterpiece, Critique of Pure Reason, 'pure' here is used in the sense of 'a priori' – i.e., that which can be known apart from any sense experience, Kant critically examined the nature of reason. He concluded that there are no innate ideas – i.e., ideas known prior to any sense experience. However, this did not lead him to draw the conclusion that the empiricists drew, namely that all knowledge is the product of sense experience. Rather, he held that our faculties of sensibility and understanding have formal structures that mold our experience. This means that certain qualities that we perceive in objects are imparted to them from the natural structures of our sensibility and understanding. Sensibility presents us with objects bare of any regularity. Understanding then takes over and organizes our sense experience as experience of the natural world. Kant is very clear. The regularity of nature is a contribution of our own understanding. He believed that the understanding has twelve concepts or 'categories' that are not derived from sense experience. Apart from sense experience, these concepts are empty, and without them sense experience is disorderly and incomprehensible. The applicability of these concepts is limited to the sphere of sense experience. The conclusion Kant drew is that speculative metaphysics is futile, since it attempts to apply these concepts to objects beyond the empirical realm. However, such an inappropriate attempt is a natural inclination of the human mind. Kant wrote two other critiques, Critique of Practical Reason and Critique of Judgement, as well as some other important works, such as Groundwork of the Metaphysics of Morals. But there is no room in this brief account to touch upon Kant's ideas in such works. We have limited ourselves to a quick presentation of his major views in the first critique,

not only because they constitute the main pillars of his philosophical system, but also .because they are the most relevant to Our Philosophy

Kant's twelve categories are: (۱) quantity, under which there are (a) unity, (b) - ۳ plurality and (c) totality; (۲) quality, under which there are (d) reality, (e) negation and (f) limitation; (۳) relation, under which there are (g) inherence and subsistence (substance and accident), (h) causality and dependence (cause and effect) and (i) community reciprocity between agent and patient; (۴) modality, under which there are: (j) possibility-impossibility, (k) existence - non-existence and (l) necessity contingency (Critique of Pure Reason, Analytic of Concepts, ch. ۱, B۹۵ and ۱۰۶, A۷۰ and .(۸۰

senses are, on the basis of this theory, the source of understanding the simple conceptions and ideas. However, they are not the only source. Rather, there is also .the innate nature that produces in the mind a number of conceptions

What obliged the rationalists to adopt this theory for explaining human conceptions was this. They did not find a reason for the arising of a number of ideas and conceptions from the senses, since they are non-sensible ideas. Thus, they must be derived essentially from the innermost being of the soul. This makes it clear that the philosophical motive for postulating the rational theory would be completely eliminated if we could explain the mental conceptions solidly, and without need of supposing innate ideas. Because of this, we can refute the rational theory in two .ways

The first is by analyzing knowledge in a way that would attribute all of it to the senses, and facilitate understanding the manner in which all conceptions are produced from the senses. Such an analysis would deny any justification to the theory of innate ideas, since it was based on the complete separation of some ideas from the sphere .of the senses

Therefore, if it were possible to extend the reach of the senses to the various areas of conception, there would be no need for innate conceptions. This way was adopted by John Locke(۱) in responding to Descartes and other such rationalists. Later, it was also

adopted by those who upheld the empirical principle, such as

p: ۶۹

John Locke, English philosopher (۱۶۳۲-۱۷۰۴). He denied the existence of innate ideas -۱ - i.e., ideas at birth. According to him, the source of all our ideas is experience, which consists of sensation and reflection. His best known philosophical work is Essay .(concerning Human Understanding (۱۶۹۰

(Berkeley(۱) and David Hume.(۲

The second way is the philosophical method for responding to [the view of] innate conceptions. It is based on the principle that a multiplicity of effects cannot be the .result of chat which is simple, by virtue of the fact of its simplicity

The soul is simple. Therefore, it cannot be a cause in a natural manner of a number of conceptions and ideas. Rather, the existence of such a large number of pieces of knowledge in the soul must be caused by many external factors. These factors are (the instrumental senses and the various sensations that occur to them.(۳) (p. ۶۸

A complete criticism of this proof requires that we explain the principle on which it is based, and give a clarification of the reality and simplicity of the soul. But for this, .there is no room here. However, we must point out the following

First, this proof - if one can accept it - does not totally demolish the theory of innate ideas, because it only demonstrates the lack of a multiplicity of innate pieces of knowledge, but does not prove that the soul does not naturally possess a limited [number of] conceptions(۴) concordant with its unity and simplicity, and resulting in a .number of other conceptions independent of the senses

In the second place, we would like to clarify that if the rational theory means that in the human soul there are innate ideas in actuality, then it becomes possible for the proof presented

p: ۷۰

۱ - George Berkeley, Irish philosopher (۱۶۸۵-۱۷۵۳). According to Berkeley, what Locke calls primary or objective qualities, such as distance, size and situation, exist only in the mind. To exist is either to be present to a mind - i.e., to be an idea, or to be a mind. His main writings are: A New Theory of Vision, Treatise concerning the Principles of .Human Knowledge and Three Dialogues between Hylas and Philonous

۲ - David Hume, Scottish philosopher (۱۷۱۱-۷۶). The central theme of his philosophy is this. Experience consists of impressions and ideas. The former are more lively than, and the source of, the latter. There are certain principles that guide our association of ideas. These are resemblance, contiguity and cause and effect. Experience produces in us custom, which is responsible for linking two successive events in a causal manner. He makes an important distinction between matters of fact and relations of ideas. Only the latter involve necessity. His main writings are: Treatise on Human Nature, Enquiry concerning Human Understanding, Enquiry concerning the Principles .of Morals, History of England and Dialogues concerning Natural Religion

۳ - Put in more detail, the multiplicity of effects shows one of four things: (۱) a multiplicity of agents; (۲) a multiplicity of recipients; (۳) a logical order among the effects themselves; or (۴) a multiplicity of conditions. Regarding our issue, there is no doubt that the conceptions, whose source is the subject of our concern, are many and varied in kind, even though there is no multiplicity of agents or of recipients. This is because the agent and the recipient of the conceptions is the soul, and the soul is simple. Also, there is no order among the conceptions. For this reason it remains that we must adopt the last explanation, i.e., that the multiplicity of conceptions depends on external conditions - these conditions being the different kinds of sense .perceptions

۴ - Such as one. But if there is one simple innate conception in the soul, the question arises as to how a multiplicity of conceptions could arise from this one. If, on the other hand, this limited number of innate conceptions is at most two, then this is a .multiplicity

above to respond to this theory as follows. The soul is simple in essence; so, how could it produce that large number of innate ideas? Indeed, if the rationalists were truly inclined to believe that, then our human inner feeling would be sufficient for

.rejecting their theory

This is because all of us know that at the moment human beings [begin] to exist on the face of the earth, they do not possess any idea, regardless of how clear and general it :is in the human mind

God brought you out of your mothers' abdomens when you did not know anything. He (gave you hearing, vision and hearts, in the hope that you will be grateful.(۱

Still, another interpretation of the rational theory can be recapitulated in the consideration that innate ideas exist in the soul potentially, and that they acquire the quality of being actual by the development and mental integration of the soul. Thus, .innate conceptions are not produced by the senses

Rather, the soul contains them without attending to them. However, with the integration of the soul, these conceptions become knowledge, attended to and clear, as is the case of the knowledge and information that we recollect and, hence, (reawaken once again after they had been latent and potential. (p. ۶۴

In light of this interpretation, the rational theory cannot be rejected on the basis of the philosophical demonstration or scientific evidence which has already been .mentioned

III. The Empirical Theory

This theory states that only sense perception supplies the human mind with conceptions

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.Al-Qur'an XVI, ۷۸ -۱

and ideas, and that mental power is that which reflects in the mind the various sense perceptions. Thus, when we perceive a thing, we can have a conception of it - that is, we can grasp its form mentally. But the ideas that lie outside the province of the

senses cannot be created by the soul, nor constructed by it essentially and independently.

According to this theory, the mind merely manages the conceptions of sensible ideas. It does this either (1) by combination and division, so that it combines those conceptions, or divides every one of them. Thus, it conceives 'a mountain of gold', or divides 'the tree', that is had known into pieces and parts. Or (2) the mind manages the conceptions of sensible ideas by abstraction and universalization, so that it separates the qualities of the form, and abstracts the form from its particular qualities; with the result that [the mind] can form from it a universal idea.

This is exemplified in conceiving Zayd, and discounting all that which distinguishes him from 'Umar. By means of this process of subtraction, the mind retains an abstract idea that applies to both Zayd and 'Umar.

Perhaps the first one to advocate this empirical theory was John Locke, the eminent British philosopher who emerged in a philosophical period pervaded by the Cartesian notions of innate ideas. Thus, Locke began to refute these notions. For this purpose, he put forth in his book, Essay on Human Understanding, a detailed philosophy of human knowledge.

p: ۷۲

In this book, he attempted to attribute all conceptions and ideas to the senses.

Later, this theory became widely spread among European philosophers, and, to some extent, it destroyed the theory of innate ideas. A number of philosophers adopted its most extreme (p. ۶۵) forms. This led to very dangerous philosophies, such as the philosophies of Berkeley and David Hume, as we will show later, God willing.

Marxism adopted this theory in its explanation of human knowledge. This was consistent with its view of human consciousness as a reflection of objective reality. Thus, all knowledge can be attributed to a reflection of a particular reality. Such a reflection occurs by means of the senses. It is not possible for knowledge and thought

to be related to anything that falls outside the limits of sensible reflections. Hence, we do not conceive anything other than our sense perceptions which indicate objective .realities that exist in the external world

:Georges Politzer(۱) said the following

But what is the point of the origin of consciousness or thought? It is sense perception. Further, the source of the sense perceptions chat human beings experience is (grounded in their natural needs.(۲

The Marxist view, therefore, can be interpreted to mean that there is no source for the content of our consciousness other than the objective particulars which are given to us by the external circumstances that we live. These particulars are given to us (through sense perceptions. That is all there is to this matter.(۳

In an attempt to clarify

Georges Politzer, French Communist (۱۹۰۸-۴۲). He was born in Hungary, but at - ۱ seventeen, left his native country for France. From then on, he became one of the most patriotic of Frenchmen. He was a member of the French Communist Party, and made many contributions to the paper of this party, L'Humanite. In ۱۹۴۰, he worked through his party to urge the people to defend Paris against the Germans. In ۱۹۴۱, he wrote and circulated a pamphlet of ۴۵ pages which he called Revolution and Counterrevolution in the Twentieth Century. In ۱۹۴۲, he was imprisoned together with ۱۴۰ Communists. He was executed the same year. His main work is Elementary .Principles of Philosophy

.Al-Maddiyya wal-Mithaliyya fi al-Falsafa, p. ۷۵ -۲

.Ibid., pp. ۷۱-۲ -۳

the Marxist view of this matter, Mao Tse-tungn(۱) made the following statement: 'The source of all knowledge lies hidden in the perceptions by the bodily human sense (organs of the objective world which surrounds us.'(۲

Thus, the first step in the process of acquiring knowledge is (p. ۶۶) the primary contact with the external environment - this is the stage of sense perception. The second step is the accumulation, the lining up and the organizing of the information which we gather from sense perception.(۳)

The empirical theory focuses on experimentation; for scientific experiments have shown chat the senses [provide] the perceptions chat produce the human conceptions. Thus, he who is deprived of any sense cannot conceive the ideas that are related to that specific sense.

Such experiments - if sound- prove scientifically only that the senses are the primary source of conception. Were it not for the senses, no conceptions would have existed in the human mind. However, such experiments do not strip the mind of the ability to produce from the sensible ideas new ideas not known by the senses.

Therefore, it is not necessary that all our simple conceptions be preceded by the sense perception of their ideas, as the empirical theory claims. In light of the above-mentioned experiments, the senses are the primary structure on the basis of which the human conception is established. But this idea does not mean that the mind is void of agency and innovation of new conceptions in light of the conceptions that are

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۱- Mao Tse-tung (۱۸۹۵-۱۹۷۶). He was born in central China. At six years old, he started working in the fields with his father, who was a farmer. When he was eight, he attended the local primary school until he was thirteen. After some further education in his own province, he joined the Communist Party in Peking. He led the struggle against the Kuomintang under Chiang Kai-shek. On October ۱, ۱۹۴۹, he was made the first chairman of the People's Republic of China. He held this position until ۱۹۵۹.

۲- Hawl at-Tatbiq, p. ۱۱

۳- Ibid., p. ۱۴.

derived from the senses.

It is possible for us to show the failure of the empirical theory in its attempt to attribute all the human conceptual notions to the senses by investigating a number of the notions of the human mind, such as the following: 'cause' and 'effect', 'substance' and 'accident', 'possibility' and 'necessity', 'unity' and 'multiplicity', 'existence' and .'non-existence', as well as other similar notions and conceptions

We all know that the senses grasp the cause and effect themselves. (p. ۶۷) Thus, by means of our sight, we know that a pencil falls to the ground if the table on which it was placed is pulled from underneath it. Also, by means of touch, we know that water .becomes hot when it is placed on fire

Similarly, we know chat bodily particles expand in hot weather. In these examples, we perceive two successive phenomena, but we do not perceive a specific relation between the two. This relation is what we call 'causality'. By 'causality' we mean the influence of one of these phenomena on the other and the need of the other for it, in .order that the other exists

The attempts that seek to extend the province of the senses to cover causality itself and to consider it as an empirical principle are based on avoiding the depth and precision in the knowledge of the realm of the senses and the ideas and limits it .includes

Regardless of the proclamations made by the empiricists - namely, chat human experiences and the

p: ۷۵

experimental sciences, which are based on the senses, are what clarify the principle of causality, and make us realize how specific material phenomena arise from other similar phenomena - I say that regardless of such proclamations, the empiricists will not be successful, as long as we know that scientific experiments cannot reveal by .means of the senses anything except the succession of phenomena

Thus, we can know that by placing water on the fire, the water gets hot. Then we

multiply its temperature. At last, we perceive the boiling of the water. The empirical side of the experiment does not disclose that boiling is produced because the temperature reaches a specific degree. But if our empirical experiments fall short of disclosing the notion of causality, then how did this nation develop in the human mind, ?so that we began to conceive it and think about it

David Hume, one of the advocates of the empirical principle, was more precise than others in applying the empirical theory. He knew that causality, in the real sense of the .term, cannot be known by the senses

Because of this, he rejected the principle of causality and attributed it to the habit of the association of ideas, saying that I see the billiard ball move, and then encounter another ball that, in turn, moves. But in the movement of the former ball, there is .nothing that reveals to me the necessity of the movement of the latter

The internal senses also tell me that the movement

of the organs follows upon an order from the will. However, they do not give me a direct knowledge of a necessary relation between the movement and the order.(۱) (p. (۶۸

But the rejection of the principle of causality does not at all minimize the difficulty that faces the empirical theory. The rejection of this principle as an objective reality means that we do not believe that causality is a law of objective reality, and that we are unable to know whether the phenomena are linked by necessary relations that make .some of them effects of some others

However, the principle of causality as an idea assented to is one thing, while the principle of causality as a conceptual idea is another. Suppose, for example, that we do not assent to the fact that some sensible things cause some other sensible things, and chat we do not form an assent concerning the principle of causality, would this mean that we do not have a conception of the principle of causality either? If we do

not have such a conception, then what is it chat was rejected by David Hume? Can a ?human being reject something of which he has no conception

The undeniable truth is chat we conceive the principle of causality, whether or not we assent to it. Further, the conception of causality is not composed of the conceptions of the two successive things. When we conceive the causation of a specific degree of temperature for boiling, we do not intend

p: ٧٧

This is the passage that the author has in mind: '. . . but there is nothing in a number -١ of instances, different from every single instance which is supposed to be exactly similar, except only that after a repetition of similar instances the mind is carried by habit, upon the appearance of one event, to expect its usual attendant and to believe that it will exist. This connexion, therefore, which we feel in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connexion. Nothing farther is in the case. Contemplate the subject on all sides; you will never find any other origin of that idea. This is the sole difference between one instance, from which we can never receive the idea of connexion, and a number of similar instances, by which it is suggested. The first time a man saw the communication of motion by impulse, as by the shock of two billiard-balls, he could not pronounce that the one event was connected, but only that it was conjoined with the other. After he has observed several instances of this nature, he then pronounces them to be connected. What alteration has given rise to this new idea of connexion? Nothing but that he now feels these events to be connected in his imagination, and can readily foretell the existence of the one from the appearance of the other' (The Enquiry concerning .(Human Understanding, VII, Edition of ١٧٧٢, pp. ٨٨-٨٩

by this causation an artificial composition of the idea of temperature and that of .boiling

Rather, we intend a third idea that exists between the two. From where, then, does

this third idea that is not known by the senses come, if the mind does not have the ability to create non-sensible ideas? We face the same difficulty with regard to the other notions mentioned earlier;(١) since all of them are non-sensible. Thus, it is necessary to cast aside the purely empirical explanation of human conceptions and to .(adopt the dispossession theory (nazariyyat al-intiza

IV. The Dispossession Theory

This is the theory of the Islamic philosophers in general. It can be summarized in the division of the mental conceptions into the following two kind:: primary conceptions .and secondary conceptions

The primary conceptions are the conceptual foundation of the human mind. (p. ۶۹) These primary conceptions are produced from the direct genre perception of their .content

Thus, we conceive heat because we had known it by means of touch. And, we conceive a color because we had known it by means of vision. Again, we conceive sweetness because we had known it by means of taste. Similarly, we conceive an .odor because we had known it by means of smell

The same is true of all the ideas that we know by means of our senses. The sense perception of every one of them is the cause of their conception and the presence of an idea about them in the human mind. These ideas form the primary

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i.e., the notions of cause and effect, substance and accident, possibility and - ١ necessity, unity and multiplicity, existence and non-existence (see p. ۶۶ of the original .(text

.foundation of conception

On the basis of this foundation, the mind establishes the secondary conceptions. With this, the stage of innovation and construction begins - the theory under consideration

gives this stage the technical name 'dispossession'. The mind produces new notions from those primary ideas. These new ideas fall outside the scope of the senses, even though they are derived and extracted from the ideas that are given to the mind and .to thought by the senses

This theory is consistent with demonstration and experiments. It is possible for it to give a solid explanation of all the conceptual units. In light of this theory, we can understand how the notions of cause and effect, substance and accident, existence and unity came about in the human mind. All of them are dispossessed notions that .the mind invents in light of the sensible ideas

Thus, we perceive the boiling of water [at sea level] when its temperature reaches one hundred degrees [centigrade]. Further, our perception of rhea two phenomena - the phenomena of boiling and that of temperature - may be repeated a thousand times, yet without our ever perceiving the causation of temperature to boiling. Rather, the mind dispossesses the notion of causality from the two phenomena that are .offered by the senses to the field of conception

Due to the limitation of space, we cannot discuss the manner, kinds and divisions of mental dispossessions. This is because in this brief investigation of ours, we are not to discuss anything other than the

p: ٧٩

(main points. (p. ٧٠

Assent and Its Primary Source .٢

point

We move now from the investigation of simple knowledge (conception) to the investigation of knowledge as assent that involves a judgement, and by means of .which human beings obtain objective knowledge

Every one of us knows a number of propositions and assents to them. Among such

propositions, there are those in which the judgement is based on particular objective '.realities, as in our statements: 'The weather is hot.' 'The sun is out

Because of this, the proposition is called 'particular'. There are also propositions in which the judgement is based on two general ideas, as in our statements: 'The whole is greater than the part.' 'One is half of two.' 'The indivisible part is impossible.' 'Heat causes boiling.' 'Coldness is a cause of solidification.' 'The circumference of the circle is greater than its diameter.' 'A mass is a relative reality.' The same is true of [other] .philosophical, physical and mathematical propositions

These propositions are called 'universal' or 'general'. The problem that we encounter is that of knowing the origin of knowledge as assent and the principles on which the edifice of human knowledge is based. What, then, are the primary threads from which that large group of judgements and knowledge is woven? Also, what is the principle that human knowledge reaches in explanation, and is considered a general primary ?criterion for distinguishing truth from other things

There are a number of philosophical doctrines concerned with this issue. Of these doctrines we will take up for study the rational doctrine

p:٨٠

and the experimental doctrine. The former is the doctrine on which Islamic philosophy, as well as the method of Islamic thinking in general, is based. The latter is the prevalent view in a number of materialistic schools, of which the Marxist school is .one

I. The Rational Doctrine

In the view of the rationalists, human knowledge is divided into two kinds. One of them is necessary knowledge, or intuitive knowledge. (p. ٧١) By 'necessity' here, we mean that the soul is obliged to accept a certain proposition, without having to require .any evidence or a demonstration of its soundness

Rather, it finds in its own nature the necessity for believing it, in a manner not in need

of any evidence or conformation. This is exemplified in the soul's belief in, or knowledge of, the following propositions: 'Negation and affirmation are not true of the same thing [at the same time].' 'That which is originated does not exist without a cause.' 'Contrary qualities are not in harmony in the same subject.' 'The whole is greater than the part.' 'One is half of two.'

The ocher kind consists of theoretical knowledge and information. There are a number of propositions whose truth the soul does not believe except in light of previous knowledge and information.

Thus, the soul's making of judgements in those propositions depends on the process of thinking and derivation of the truth from prior truths that are clearer than they are, as in the following propositions: 'The earth is spherical.' 'Motion is a cause of heat.' '[The infinite]

p: ۸۱

regress is impossible.' 'Bodily particles expand by heat.' 'The angles of a triangle are equal to two right angles.' 'Matter is transformable into energy.'

The same is true of similar philosophical and scientific propositions. When such propositions are presented to the soul, the soul does not reach a judgement concerning them except after reviewing other information. Because of this, the theoretical knowledge depends on the necessary primary knowledge. Therefore, if such primary knowledge is removed from the human mind, one would not be able at all to attain any theoretical knowledge, as we will show later, God willing.

Thus, the rational doctrine shows chat the cornerstone of knowledge is the primary information. On the basis of such information, the superstructures of human thought, referred to as 'secondary information', are built.

The operation through which one derives theoretical knowledge from previous knowledge is the operation that we call 'thought' or 'thinking'. Thinking is an effort that the mind makes for the purpose of acquiring a new assent or a new knowledge

from some of its previous knowledge. This means that when a human being attempts to deal with a new issue, such as the origination of matter, in order to know (p. ۷۲) .whether matter is originated or old, he has two things to consider

One of them is a specific attribute - that is, the origination. And the other is the thing which seeks actualization by means of acquiring that attribute - this thing being 'matter'. Since this proposition is not one

p: ۸۲

of the rational primary propositions, a human being, therefore, would naturally hesitate to judge and to accept the origination of matter. He then resorts to his previous knowledge to try to find in it something on which he can base his judgement .and utilize as an intermediary for knowing the origination of matter

With this, the process of thinking begins by looking over the previous information. Let us suppose, for example, that among such truths that the thinker already knows, there is the substantial movement that determines that matter is a continuous motion and a constant renewal. The mind, then, grasps this truth when this truth appears to it in the mental presentation, and makes it a link between matter and origination. For, since matter is renewable, is must be originated. This is because continuous change means continuous creation. At that point, a new knowledge is acquired by the human being, this knowledge being that matter is originated, because it is moveable and .renewable, and whatever is renewable is originated

This is how the mind is able to draw a link between origination and matter - the link being the motion of matter. It is this motion that makes us believe that matter is .originated, because we know that everything moveable is originated

Due to this, the rational doctrine asserts chat the causal relation in human knowledge is between some information and some other. For all knowledge is only produced by previous knowledge. The same is true of this previous knowledge, [and

p: ۸۳

so on], until the progressive series reaches the primary rational knowledge that does not arise from previous knowledge. For this reason, this primary knowledge is considered the primary cause of knowledge.

This primary cause of knowledge is of two kinds: it is either (١) a basic condition of all human knowledge in general, or (٢) a cause of a part of the information. The former is the principle of non-contradiction. This principle is necessary for all (p. ٧٨) knowledge. Without is one cannot be sure that a certain proposition is not false, regardless of how much evidence one has for its truth and soundness.

This is because, if contradiction were possible, then it would be possible for the proposition to be false at the same time in which we prove its truth. This means that the collapse of the principle of noncontradiction strikes a blow at all philosophical and physical propositions, regardless of their kind. The latter kind of primary knowledge is the rest of the necessary knowledge of which every piece is a cause of a group of pieces of information.

On the basis of the rational doctrine, the following [truths] hold: first, the primary criterion of human thinking in general is the necessary rational knowledge. It is the fundamental pillar that is indispensable in every field. The truth or falsity of every idea must be measured in light of it. Due to this, the field of human knowledge becomes wider than the sphere of the senses and experimentation. This is

because it provides human thinking with powers that extend to truths and propositions that lie beyond matter, and achieves for metaphysics and the higher philosophy the possibility of knowledge.

The experimental doctrine is the contrary of this. It distances the metaphysical issues from the field of discussion, because they are issues which are not subject to experimentation, and to which scientific understanding does not extend. Thus, it is not possible to be sure whether they are negations or affirmations, as long as experimentation is the only primary criterion, as the experimental doctrine claims.

Second, in the view of the rationalists, the progression of thought moves from general propositions to more particular propositions – that is, from universal propositions to particular propositions. Even in the experimental field, which appears at first sight to be one in which the mind moves from individual experimental subjects to general principles and laws, movement and progression occur from the general to the (particular. This will be shown in our response to the experimental doctrine. (p. ۷۴

No doubt, you remember the example already mentioned of the knowledgeability of thought, how we moved in it from a general knowledge to a particular knowledge. We acquired the knowledge that 'matter is originated' from the knowledge that 'everything that changes is originated'. Thought began with this universal proposition, 'Everything that changes is originated', and then moved from it to a more particular .'proposition, 'Matter is originated

Finally we must warn that the rational doctrine does not neglect the powerful role of experimentation

in the human sciences and knowledge, the enormous services that experimentation offers to mankind, and the secrets of the universe and the natural mysteries that it .discloses

However, according to this doctrine, experimentation alone could not have played this powerful role; because for the derivation of any such scientific truths from it, it requires the application of the necessary rational laws. This means that the derivation is achieved in light of the primary knowledge. It is not possible for experiments in themselves to be the original source and the primary criterion for knowledge. For it is analogous to the test that the doctor gives the patient. It is this test that provides the doctor with the opportunity of discovering the nature of the disease and its .accompanying complications

However, this test would not help discover that, were it not for the previous information and knowledge that the doctor has. Had he not had such information, his

test would have been null and empty of any benefit. Similarly, human experiments, in general, do not pave the way for conclusions and truths except in light of previous rational information.

II. The Empirical Doctrine

This doctrine states that experience is the primary source of all human knowledge. For that, it relies on the assertion that when human beings are deprived of the various kinds of experiences, they do not know any truth, regardless of its clarity. This shows that(۱) human beings are born without any innate knowledge. They begin their awareness and knowledge as soon as they begin (p.

۱- Text: wa-lidha (because of this).

۷۵) their practical lives. Their knowledge widens as their experiences widen, and their knowledge becomes varied in kind as their. experiences take on different forms.

The empiricists do not admit necessary rational knowledge prior to experience. Rather, they consider experience as the only basis of sound judgement and the general criterion in every field. Even those judgements that the rational doctrine alleges to be necessary knowledge must, [according to the empiricists], be subject to the empirical criterion, and must be admitted in accordance with the determination of experience.

This is because human beings do not have any judgement whose confirmation does not require experience. This results in the following:

First, the, power of human thinking is delimited by the limits of the empirical field; so that, any metaphysical investigation or study of metaphysical issues becomes useless. [In this, the empirical doctrine] is exactly the contrary of the rational doctrine.

Second, the movement of thought progresses in a way contrary to the manner asserted by the rational doctrine. Thus, whereas the rational doctrine asserts that a

thought always moves from what is general to what is particular, the empiricists assert that it moves from what is particular to what is general; that is, from the narrow limits of experiments to universal laws and principles. It always progresses from the empirical particular truth to the absolute truth. The general laws and universal principles that human beings have are nothing but the result of experiences. The consequence of this is a progression of induction from(١) individual

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١- Induction is probable inference.

things to a discovery of general objective truths.

For this reason, the empirical doctrine relies on the inductive method in [its] search for evidence and in thinking, since this method is one that ascends from the particular to the universal. It rejects the principle of syllogistic(١) reasoning, by virtue of which thought moves from the general to the particular, as in the following syllogistic figure:(٢) 'All human beings are mortal.' 'Muhammad is a human being.' 'Therefore, Muhammad is mortal.' (p. ٧۶)'All human beings are mortal.' 'Muhammad is a human being.' 'Therefore, Muhammad is mortal.' (p. ٧۶)

This rejection depends on the fact that this syllogistic figure does not lead to new knowledge in the conclusion, even though it is a condition of demonstration that it leads to a new conclusion not contained in the premises.(٣)

Thus, the syllogism in its above-mentioned form falls into the kind of fallacy called 'begging the question' (al-musadara 'ala al-matlub). This is because if we accept the premise 'all human beings are mortal', we then include in the subject, 'human being', all human individuals. After that, if we follow this premise by another: 'Muhammad is a human being,' we are then either aware that Muhammad is one of the human individuals we intended in the first premise - with this, we would also be aware that he is mortal before we state this truth in the second premise - or we are not aware of that. In this case, we would have generalized the first premise without

۱- A syllogism is a form of reasoning in which two propositions necessarily lead to a third.

۲- There are four figures of the moods of the categorical syllogism according to the position of the middle term in the premises. When the middle term is subject in the major premise and predicate in the minor premise, we get the first figure. When it is predicate in both premises, we get the second figure. When it is subject in both premises, we get the third figure. And when it is predicate in the major premise and subject in the minor premise, we get the fourth figure.

۳- Each of the two statements which together yield a conclusion is called 'premise' (premiss).

justification, because we had not yet known that mortality is applicable to all human beings, as we claimed.

This is a brief exposition of the empirical doctrine which we find ourselves obliged to reject for the following reasons. First, is this principle itself (experience is the primary criterion for discerning the truth) primary knowledge that human beings acquire without previous experience? Or is it, in turn, like other human knowledge, in being neither innate nor necessary?

If it is primary knowledge previous to experience, then the empirical doctrine, which does not affirm primary knowledge, is falsified; and the presence of necessary human information as independent of experience is affirmed. But if this knowledge is in need of previous knowledge, this would mean that we do not know at first that experience is a logical criterion whose truth is secured. How, then, can one demonstrate its truth, and consider it a criterion of experience when its truth is not yet certain?

In other words, if the above-mentioned principle, which is the cornerstone of the empirical doctrine, is false, then the empirical doctrine collapses due to the collapse of its main principle. (p. ۷۷) If, on the other hand, it is sound, then it will be appropriate for us to inquire about the reason that led the empiricists to believe that this principle is

.sound

For if they were assured of its soundness without experience, this would mean that it is an intuitive proposition, and that human beings possess truths that lie beyond the realm

of experience. If, however, they were assured of its soundness by a previous experience, this would be impossible, because experience cannot ascertain its own .value

Second, the philosophical notion that is based on the empirical doctrine is incapable of affirming matter. The reason for this is that matter cannot be disclosed by means of pure experience. Rather, all that appears to the senses in the experiential fields are only the phenomena and accidents of matter. Regarding matter itself – namely, the material substance that those phenomena and qualities exhibit – it is not known by .the senses

The rose that we see on the tree, for example, or that we touch with our hand [is such that] we only have sense perception of its odor, color and softness. Even if we taste it, we will [only] have sense perception of its flavor. But in none of these cases do we have sense perception of the substance in which all these phenomena meet. Rather, we know this substance only by means of a rational proof that is based on primary rational knowledge, as we will point out in the forthcoming discussions. For this .reason, a number of empiricists or experientialists denied the existence of matter

The only ground for asserting [the existence of] matter are the primary rational propositions. Were it not for them, it would not be possible for the senses to confirm to us the existence of matter behind the beautiful smell, the red color and the specific flavor of the

.rose

Thus, it becomes dear to us that the metaphysical realities are not the only realities whose demonstration requires the pursuit of the rational method in thinking, but also .matter itself

As a matter of fact, we raise this objection against those who believe on the basis of the principles of the empirical doctrine that a material substance exists in nature. But this objection does not touch those who interpret nature (p. ٧٨) as mere phenomena .that occur and change, without admitting a subject in which such phenomena meet

Third, if the mind were confined to the limits of experience and did not have knowledge independent of experience, then it would not be possible for it at all to assert the impossibility of anything. This is because impossibility, in the sense of 'non-possibility of the existence of a thing', is not within the scope of experience; nor is it possible for experience to disclose it. The most that experience can show is the non-existence of specific things.(١)

However, the non-existence of a thing does not mean its impossibility. There are a number of things whose existence is not disclosed by experience. Rather, experience shows their non-existence in their specific area. In spite of that, we do not consider them impossible; nor do we strip them of the possibility of existence, as we do in the .case of impossible things

There is a clear difference between the collision of the moon with the earth, the existence of people on Mars, or the existence of a human

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١- That is, while experience can show us that a thing does not exist, it cannot show us .that it is not possible for that thing to exist

being who can fly due to specific flexibility in his muscles, on the one hand,(١) and the existence of a triangle having four sides, the existence of a part greater than the whole, or the existence of the moon in the case of its non-existence, on the other hand.(٢)

None of these propositions has been actualized, and none of them has been subject to experience. Thus, if experience alone were the main source of knowledge, then we would not be able to distinguish between the [abovementioned] two groups [of propositions]. This is because the word 'experience' is the same in both of them. In .spite of this, we all see the clear difference between the two groups

The first group has not been actualized; however, it is possible essentially. As for the second group, it is not only nonexistent, but it cannot exist at all. The triangle, for .example, cannot have four sides, whether or not the moon collides with the earth

This judgement of impossibility cannot be interpreted except in light of the rational doctrine, as a rational knowledge independent of experience. Because of this, the empiricists are left with two alternatives only. They must either admit the impossibility of specific things, such as the things mentioned in the second group, (p. ۷۹) or they .must deny the notion of impossibility of all things

If they accept the impossibility of things, such as those which we have mentioned [in the second group], their acceptance must rely on independent rational knowledge, and

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.These are examples of non-existent, yet possible things -۱
.These are examples of non-existent and impossible things -۲

not on experience. The reason is that the nonappearance of a thing in experience .does not indicate its impossibility

If, on the other hand, they deny the notion of impossibility, and do not admit the impossibility of anything, regardless of how strange that may be to the mind, on the basis of such a denial, there would remain no difference between the two groups already presented, concerning which we have realized the necessity of differentiating .between them

Further, if the notion of impossibility is eliminated, then contradiction - namely, the simultaneous existence and non-existence of a thing, or the simultaneous truth and falsity of a proposition - will not be impossible. But the possibility of contradiction leads to the collapse of all knowledge and' science, and to the failure of experience to .remove doubt and hesitancy in any scientific field

This is because no matter how many experiments and pieces of evidence confirm the truth of a specific scientific proposition, such as 'Gold is a simple element', we still cannot be certain that this proposition is not false, as long as it is possible for things to .be contradictory and for propositions to be true and false at the same time

Fourth the principle of causality cannot be demonstrated by means of the empirical doctrine. As the empirical theory is incapable of giving a sound justification of causality as a conceptual idea, so also is the empirical doctrine incapable of demonstrating it as a principle or an idea of assent. For experience cannot clarify

p: ٩٣

.anything to us except a succession of specific phenomena

Thus, by means of it we know that water boils when it is heated to ١٠٠ degrees [centigrade], and that it freezes when its temperature reaches below ٠ degrees [centigrade]. As for one phenomenon causing the other, and the necessity between the two, this is something not disclosed by the means of experience, regardless of how precise it is and regardless of our repetition of the experience. But if the principle .of causality collapses, all the natural sciences also collapse, as you will learn later

Some empiricists, such as David Hume and John Stuart Mill (p. ٨٠), have admitted this truth. That is why Hume interprets the element of necessity in the law of cause and effect to be due to the nature of the rational operation that is employed in reaching .this law

He says that if one of the operations of the mind is employed for the purpose of obtaining this law - adding that if one of the operations of the mind always leads to

another operation that follows it immediately -then, with the passage of time, a constant strong relation, which we call 'the relation of association of ideas', develops .between the two operations

This association is accompanied by a kind of rational necessity, such that the idea that is linked to one of the two mental operations occurs in the mind, as does the idea that is linked to the other operation. This rational necessity is the

p: ٩۴

basis of what we call the necessity that we grasp in the link between the cause and the effect. There is no doubt that this explanation of the relation between the cause .and the effect is incorrect for the following reasons

First, from this explanation, it follows that we do not reach the general law of causality except after a series of repeated events and experiments that fasten in the mind the link between the two ideas of cause and effect, even though that is not necessary. For the natural scientist is able to infer a relation of causality and necessity between two things that occur in one event. His certitude is not at all strengthened [later] beyond what it was when he observed the event for the first time. Similarly, the relation of causality is not strengthened by the repetition of other events involving the same .cause and effect

Second, let us put aside two successive external events and turn our attention to their two ideas in the mind - namely, the idea of cause and that of effect. Is the relation between them one of necessity or one of conjunction, as our conception of iron is ?conjoined to our conception of the market in which the iron is sold

If it is a necessary relation, then the principle of causality is confirmed, and a non-empirical relation between two ideas - that is, the relation of necessity - is implicitly admitted. (p. ٨١) [In this case], whether necessity is between two

p: ٩۵

ideas or between two objective realities, it cannot be demonstrated by sense

experience. If, on the other hand, the relation is a mere conjunction, then David [Hume] did not succeed in explaining, as he intended, the element of necessity in the .law of cause and effect

Third, the necessity, which we grasp in the relation of causality between a cause and an effect, involves no influence at all on requiring the mind to invoke one of the two ideas when the other idea occurs in the mind. That is why this necessity that we grasp between the cause and the effect is the same, whether or not we have a specific idea about the relation. Thus, necessity of the principle of causality is not a psychological .necessity, but an objective necessity

Fourth, the cause and effect may be completely conjoined, yet in spite of that, we grasp the causation of the one on the other. This is exemplified m the movement of the hand and that of the pencil during writing. These two movements are always present at the same time. If the source of necessity and causality were the succession of one of the two mental operations after the other by means of association, then it would not be possible in this example for the movement of the hand to play the role of the cause loll the movement of the pencil; for the mind grasps the two movements at the same time. Why then should one of them be posited

?as a cause and the other as an effect

In other words, explaining causality as a psychological necessity means that the cause is considered as such, not because in objective reality it is prior to the effect and is productive of it, but because knowledge of it is always followed by knowledge of the effect by means of the association of ideas. Due to this, the former is the cause .of the latter

This explanation cannot show us how the movement of the hand becomes a cause of the movement of the pencil, even though the movement of the pencil does not succeed the movement of the hand in knowledge. Rather, the two movements are known simultaneously. Thus, if the movement of the hand does not have actual

priority and objective causality over the movement of the pencil, it would not have (been possible to consider it as a cause. (p. ٨٢

Fifth, it is often the case that two things are associated without the belief that one of them is a cause of the other. If it were possible for David Hume to explain the cause and effect as two events whose succession we often grasp, such that a link of the type of association of ideas occurs between them in the mind, then the night and day .would be of this sort

As heat and boiling are two events that have succeeded each other, until an associational link developed between them, the same must be true of the night and

p: ٩٧

day, their succession and their association, even though the elements of causality and necessity that we grasp between heat and boiling are non-existent between the night and day. The night is not a cause of the day, nor the day a cause of the night. It is not possible, therefore, to explain these two elements by the mere repeated succession .which leads to the association of ideas, as Hume tried to do

We conclude from this that the empirical doctrine unavoidably leads to the elimination of the principle of causality and to the failure of demonstrating necessary relations between things. But if the principle of causality is eliminated, all the natural sciences .will collapse, since they depend on it, as you will know

The natural sciences, which the empiricists seek to establish on the basis of pure experimentation, are themselves in need of primary rational principles that are prior to experimentation. This is because the scientist carries out his experiment in his laboratory on limited objective particulars. Then he puts forward a theory for explaining the phenomena that the experiment in the laboratory had disclosed, and .for justifying them by one common cause

This is exemplified in the theory that states that the cause of heat is motion, on the basis of a number of experiments interpreted in this way. It is our right to ask the

natural scientist about how he offers this theory as a universal law applicable to all circumstances resembling those of the experiment, even though the experiment did

p: ٩٨

not apply except to a number of specific things. Is it not the case, then, that this generalization is based on a principle stating that similar circumstances and things ?alike in kind and reality must share in laws (p. ٨٣) and decrees

Here, once again, we inquire about how the mind reached this principle. The empiricists cannot claim that it is an empirical principle. Rather, it must be a piece of rational knowledge that is prior to experimentation. The reason is that if it were supported by experimentation, then the experimentation on which this principle is based also, in turn, treats only specific subjects. How, then, can a general principle be based on it? Thus, the establishment of a general principle or a universal law in light of one or more experiments cannot be accomplished except after admitting prior .rational knowledge

With this, it becomes clear that all the empirical theories in the natural sciences are based on a number of pieces of rational knowledge that are not subject to :experimentation. Rather, the mind accepts them immediately. They are the following

The principle of causality, in the sense of the impossibility of chance. That is, if .١ chance were possible, then it would not be possible for the natural scientist to reach a common explanation of the numerous phenomena that appear in his .experimentation

The principle of harmony between cause and effect. This principle states that things .٢ .that in reality are similar necessarily depend on a common cause

The principle .٣

p: ٩٩

of non-contradiction that asserts that it is impossible for negation and affirmation to

.be true simultaneously

If the scientist accepts these pieces of knowledge that are prior to experimentation, and then carries out his various experiments on the kinds and divisions of heat, he can, in the last analysis, postulate a theory for explaining the different kinds of heat by one cause, such as motion, for example. On the whole, it is not possible to postulate .this theory as a decisive and an absolute one

The reason is that it can be such only if it is possible for one to be certain of the absence of another explanation of those phenomena, and of the incorrectness of explaining them by another cause. However, in general, this is not determined by experiments. (p. ۸۴) That is why the conclusions of the natural sciences are, for the most part, presumptive, due to a deficiency in experiments, and to an incompleteness .in the conditions that make them decisive experiments

It becomes clear to us from what has preceded that the inference of a scientific conclusion from an experiment is always dependent on syllogistic reasoning in which the human mind moves from the general to the specific, and from the universal to the particular, exactly as viewed by the rational doctrine. The scientist is able to draw the conclusion in the above example by moving from the already mentioned three primary principles (the principle of causality, the principle of harmony, and the principle of non-contradiction) to

p: ۱۰۰

.that specific conclusion in accordance with the syllogistic approach

Regarding the objection raised by the empiricists against the method of syllogistic reasoning- namely, that the conclusion in it is nothing but an echo of one of the two premises, that is, the major premise, and a repetition of it- it is a bad objection, .according to the teachings of the rational doctrine

This is because if we intended to demonstrate the major premise by experiments, and had no other criterion, then we would have to examine all the divisions and kinds,

in order to be certain of the soundness of the judgement. The conclusion then would .have been also determined in the major premise itself

But if the major premise were a piece of rational knowledge, which we grasp without need of experiments, such as the primary intuitive propositions and the rational theories that are derived from such propositions, then he who seeks to demonstrate the major premise does not need to examine the particulars so that the conclusion is (necessitated to take on the quality of repetition and reiteration.(۱) (p. ۸۵

Once again, we assert that we do not deny the great value of experience for humanity and the extent of its service in the fields of knowledge. However, we wish to make the empiricists understand that experiments are not the primary criterion and .the fundamental source of human thought and knowledge

Rather, the primary criterion and the fundamental source are rational primary information, in whose light we acquire all other

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۱- The attempt made by Dr Zaki Najib Mahimud is strange indeed - namely, to ground the previously mentioned objection in syllogistic reasoning, as in our saying: 'All human beings are mortal; Muhammad is a human being; therefore, Muhammad is mortal.' He says that you may say, 'But when I generalize in the first premise, I do not intend human beings one by one, because considering them in this way is impossible. Rather, I intend the [human] species in general.' If this is what you think, then how can you apply the judgement specifically to Muhammad, since Muhammad is not the species in general? Rather, he is a specific determined individual. Thus, the judgement concerning him which you apply to the species in general is in truth an invalid syllogism (al-Mantiq al-Wad'iyy, p. ۲۵۰). This is a strange confusion between first intentions and second intentions (as logicians are accustomed to calling them). A judgement concerning the species in general means one of two things. The first is that the judgement concerning a human being is characterized by what is general or by the species of that human being. It is clear that such a judgement cannot be

specifically applied to Muhammad, because Muhammad does not have the quality of generality or of being a species. The second is that the judgement concerning a human being himself is not relative. That is, it does not pertain specifically to him. This kind of judgement can be applied to Muhammad, because Muhammad is a human being. The middle term has the same meaning that is repeated in both the minor and .the major premises. Thus, the syllogism yields a conclusion

information and truths. Even experience itself is in need of such a rational criterion. Thus, we and others alike are required to admit this criterion on which the principles of our metaphysical philosophy are based. If, after that, the empiricists attempt to deny this criterion in order to falsify our philosophy, they would be, at the same time, attacking the principles that are the foundation of the natural sciences, and without .which the empirical experience is completely fruitless

In light of the rational doctrine, we can explain the quality of necessity and absolute certainty that distinguish mathematics from the propositions of the natural sciences. This distinction is due to the fact that the necessary mathematical laws and truths are supported by the primary principles (p. ۸۶) of the mind, and do not depend on the .discoveries of experiments. The scientific propositions are contrariwise

Thus, the expansion of iron due to heat is not one of the propositions that are given by those principles with no mediation, but is based on experimental propositions. The decisive rational character is the secret of the necessity and absolute certainty in the .mathematical truths

If we study the difference between the mathematical and the natural propositions in light of the empirical doctrine, we will not find a decisive justification for this difference, as long as experience is the only source of scientific knowledge in the two .fields

Some of the defenders of the empirical doctrine have tried to explain the difference on a doctrinal basis by saying that

the mathematical propositions are analytic, and that it is not their function to come up .with something new

When we say, for example, 'Two plus two equals four,' we do not say anything against which we can test the degree of our certainty, since 'four' is itself another expression for 'two' plus 'two'. Put clearly, the above-mentioned mathematical equation is nothing other than 'Four equals four'. All mathematical propositions are an extension .of this analysis. However, this extension varies in the degree of its complexity

The natural sciences, on the other hand, are not of this sort. The reason for this is that their propositions are composite; that is, the predicate in them adds new information to the subject. This is to say that it provides new information on the basis of .experiments

Thus, if you say, 'Water boils under such and such a pressure; that is, when its temperature, for example, reaches ١٠٠ degrees [centigrade]', then I would be informed that the term 'water' does not include the terms 'temperature" pressure', .and 'boiling'. Because of this, the scientific propositions are subject to falsity and truth

But, it is our right to remark concerning this attempt at justifying the difference between the mathematical and the natural propositions that the consideration of the former as analytic does not explain the difference on the basis of the empirical doctrine. Suppose that 'Two plus two equals four' is another expression for our statement, 'Four is four'. This would mean that this mathematical proposition depends on

p: ١٠٣

accepting the principle of non-contradiction; otherwise, 'four' may not be itself, if .contradiction were (p. ٨٧) possible

According to the teachings of the empirical doctrine, this principle is not rational and necessary; for it denies all prior knowledge. Rather, it is derived from experience, as are the principles on which the scientific propositions in the natural sciences are

based. Thus, the problem remains unsolved, as long as both mathematics and the natural sciences are dependent on empirical principles. Why, then, are the mathematical propositions distinguished from other propositions by absolute ?necessary certainty

Further, we do not admit that all mathematical propositions are analytic and an extension of the principle 'Four is four'. How could the truth stating 'The diameter is always shorter than the circumference' be an analytic proposition? Are 'shortness' and 'circumference' included in the notion of 'diameter'? And is 'diameter' another ?'expression for the statement, 'The diameter is a diameter

We conclude from this study that the rational doctrine is the only doctrine capable of solving the problem of the justification of knowledge, and setting up the criteria and .primary principles of knowledge

Still, it remains for us to study one point concerning the rational doctrine namely, that if the primary information is rational and necessary, then how is it possible to explain its absence in human beings at the beginning [of their existence], and their acquisition of it at a later date? In other words, if such information is essential for human beings, .then it must be present whenever they exist

p: ۱۰۴

That is, it is impossible for them to be without it at any moment of their lives. If, on the other hand, it is not essential, then there must be an external cause for it - that cause .being experience. But with this the rationalists do not agree

In fact, when the rationalists assert that those principles arc necessary in the human mind, they mean by this that if the mind conceives the ideas that are linked together by means of those principles, then it infers the first principle, without need of an .external cause

Let us take (p. ۸۸) the principle of non-contradiction as an example. This principle, which is an assent stating that the existence and non-existence of a thing cannot be

simultaneous, is not available to human beings at the moment they begin to exist. This is because it depends on the conception of existence, non-existence and the .[simultaneity [of the two

Without the conception of these objects, it is not possible to make the assent that existence and non-existence cannot be simultaneous. The assent of a human being to something he has no conception of is impossible. We had already learned in our attempt to analyze mental conceptions that all conceptions result and proceed from .the senses, whether directly or indirectly

Thus, by means of the senses, human beings must acquire the group of conceptions on which the principle of non-contradiction depends, so that they will have the opportunity to judge and assent by means of it. Therefore, the

p: ۱۰۵

fact that this principle appears later on in the human mind does not indicate that it is not necessary, and that it does not proceed from the innermost being of the human .soul without requiring an external cause

Indeed, it is necessary and does proceed from the soul independently of experience. The specific conceptions are necessary conditions for its existence and for its proceeding from the soul. If you wish, compare the soul and the primary principles to fire and its burning [respectively]. As the burning of fire is an essential act of fire, yet does not exist except in light of certain conditions - that is, when fire meets a dry body; so also are the primary judgements necessary and essential acts of the soul .when the necessary conceptions are complete

If we choose to speak on a higher level, we would say that even if primary knowledge occurs to human beings gradually, this gradualness would not mean that it occurs due to external experience. For we have already shown that external experience cannot be the primary source of knowledge. Rather, this gradualness is in accordance with the substantial movement and development of the human soul. Such development and substantial integration is responsible for the increase in the soul's completion and

awareness of the primary information and the fundamental principles - thus opening (up the capacities and powers that lie latent in it. (p. ٨٩

This makes it clear that the objection to the rational doctrine as to why the primary information

p: ١٠۶

is not present with human beings at the moment of their birth depends on the non-acceptance of potential existence and the unconsciousness that is very clearly indicated by memory. Thus, the human soul itself includes this primary knowledge in potentiality. By the substantial movement, the existence of the soul increases in .intensity, until those objects that are known potentially become known actually

Marxism and Experience .٣

The empirical doctrine presented above is applicable to two views concerning knowledge. The first is that which states that all knowledge is complete in the first .stage - that is, the stage of sense perception and simple experience

The second is that which states that knowledge involves two steps: the empirical step and the mental step - that is, application and theory or the stage of experience and that of comprehension and inference. The starting point of knowledge is the senses and experience. The high degree of knowledge is the formation of a scientific comprehension and a theory that reflects the empirical reality in depth and with .precision

The second view is the one adopted by Marxism concerning the problem of knowledge. However, Marxism recognized that this view in its apparent form will lead it to the rational doctrine, since this view assumes a field or an area of human knowledge external to the limits of simple experience. Thus, it established it on the basis of the unity between theory and application and the impossibility of separating one from the other. With this, it retained the place of experience, the

empirical doctrine, and the consideration of it as a general criterion of human .knowledge

:Mao Tse-tung makes the following remark

The first step in the process of acquiring knowledge is the immediate contact with the external environment - this being the stage of sense perception. The second step (p. ٩٠) is the gathering, the arranging and the ordering of the information which we receive from the sense perception - this being the stage of notions, judgments and .conclusions

By acquiring sufficient and complete information from sense perception (neither particular nor insufficient) and corresponding such information to the real situation (not false notions), then we may be able to form on the basis of such information a (true notion and a sound logic.(١

:He also says this

The continuous social application leads to the repetition of multiple occurrences in people's application of things which they perceive by the senses, and which create in them an impression. At this point, a sudden change in the form of a leap occurs during (the process of acquiring knowledge. With this, notions are created.(٢

In this text, Marxism asserts that theory is inseparable from application namely, the :unity of theory and application

It is important, therefore, that we understand the meaning of the unity of theory and application. It asserts that he who neglects theory falls into the philosophy of practice, moving as a blind person moves and falters in the dark. As for him who neglects (p. ٩١) application, he falls into doctrinal stagnation, and turns into one who

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.Hawl at-Tatbiq, p. ١۴ -١

.Ibid., p. ۶ -٢

(has nothing but a doctrine and empty rational demonstration.(1)

With this, Marxism confirmed its empirical position - namely, that sense experience is the criterion that must be applied to all knowledge and to every theory, and that there is no knowledge apart from experience, as Mao Tse-tung declared in the following:

The theory of knowledge in dialectical materialism gives application the first place. It views people's acquisition of knowledge as requiring no degree of separation from application. It also wages a war against all theories which [it considers] erroneous [for] denying the importance of application, or allowing the separation of knowledge from application.(2)

It seems that Marxism admits two stages of human knowledge, yet it does not wish to accept that some knowledge is separable from sense experience. This is the basic contradiction on which the theory of knowledge in dialectical materialism is based. That is, if the mind does not have some fixed knowledge, which is independent of sense experience, it will neither be able to postulate a theory in light of sense perception, nor to understand the empirical propositions.

This is because the inference of a specific idea from the sensible phenomena in experience is possible for a human being only if he knows, at least, that such phenomena require by nature such an idea. Thus, he establishes the inference of his specific theory on this [knowledge].

To clarify this point, we must know that sense experience, as Marxism admits, (p. ٩٢) reflects the phenomena of things, but does not

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1- Al-Maddiyya wal-Mithaliyya fi al-Falsafa, p. ١١۴.
2- Hawl at-Tatbiq, p. ۴.

reveal their substance and their internal laws that regulate and organize these phenomena. No matter how much we repeat the experience and reinstate the

practical application, we will achieve at best only a new set of separable superficial .phenomena

Clearly, such empirical knowledge that we acquire through sense experience does not in itself require the formation of a specific rational idea of the external thing. The reason is that such empirical knowledge, which is the first stage of knowledge, may be shared by many individuals; however, not all of them reach a unified theory and a .single notion concerning the substance of a thing and its actual laws

We learn from this that the first stage of knowledge is not sufficient by itself for the formation of a theory -that is, for moving a human being, whether naturally or dialectically, to the second stage of real knowledge. What thing, then, enables us to ?move from the first to the second stage

This thing is our rational knowledge which is independent of sense experience, and on which the rational doctrine is based. Such knowledge makes it possible for us to present a number of theories and notions, and to notice the extent of harmony between the phenomena that are reflected in our experiences and sensations [on the .[one hand] and these theories and notions [on the other hand

We eliminate every notion that does not agree with such phenomena, until, by virtue of the judgement of the primary rational knowledge, we attain a

p: ۱۱۰

notion that is in harmony with sensible or empirical phenomena. Then we posit this notion as a theory that explains the substance of a thing and the laws that govern that .thing

If, from the very beginning, we isolate the independent rational knowledge from sense experience, then it becomes totally impossible to move from the stage of sense perception to that of theory and inference, and to be sure about the correctness of the theory and inference by returning to the application and the repetition of (experience. (p. ۹۳

We conclude from this that the only explanation concerning the second stage of knowledge - that is, the stage of judgement and inference - is the assertion on which the rational doctrine is based: namely, that a number of the general laws of the world are known by human beings independently of sense experience. Such laws are exemplified by the principle of non-contradiction, the principle of causality, and the principle of harmony between cause and effect, as well as other similar general laws.

When scientific experimentation presents human beings with the natural phenomena and reflects such phenomena in their sense perceptions, then human beings apply the general principles to these phenomena, and determine, in light of these principles, their scientific notion about the actuality and substance of a thing. This is to say that they seek to discover what lies behind empirical phenomena, and to delve into higher realities, as the application of the general principles both dictates and seeks.

These realities, which

p: ١١١

are of a higher value, are added to their previous information. With this, they acquire a larger wealth (of information which they can employ] when they attempt to solve a new riddle of nature in another experimental field. We do not mean by this that application and scientific experimentation do not play an important role in human knowledge of nature and its laws. There is no doubt about their role in this. Rather, we only wish to assert that the elimination of all knowledge which is independent of experience and the rejection of rational knowledge in general makes it impossible to go beyond the first stage of knowledge, i.e. the stage of sense perception and experience.

۴. Sense Experience and the Philosophical Edifice

This polarized contradiction between the rational doctrine and the empirical doctrine does not stop at the limits of the theory of knowledge. Rather, its dangerous influence extends to the whole philosophical edifice. This is because the fate of philosophy as a genuine edifice independent of the natural and the empirical sciences is, to a great

extent, linked to the method of resolving this contradiction between the above-mentioned two doctrines.

Thus, a discussion of the general criterion of human knowledge and the primary principles of such knowledge is something that would either justify the existence of philosophy, or rule (p. ۹۴) that philosophy must withdraw and leave its task to the natural sciences.

The philosophical edifice has faced this dilemma or this test ever since the empirical method developed and invaded the scientific fields with efficiency and zeal.

Here is what happened.

Before the empirical tendency prevailed, philosophy, at the dawn of its history, included almost all human knowledge arranged in general order. Thus, mathematics and the natural sciences were presented on a philosophical level, just as the metaphysical issues were presented. In its general and comprehensive sense, philosophy became responsible for discovering the general truths in all the fields of being and existence.

In all those fields, philosophy used the syllogism as a tool for knowledge -the syllogism being the rational method of thinking, or the movement of thought from general to more particular propositions.

Philosophy remained in control of the human intellectual sphere, until experimentation began to push its way through, and to perform its role in many fields by moving from particulars to universals, and from subjects of experiments to more general and more comprehensive laws. Thus, philosophy found itself obliged to shrink and limit itself to its basic field, and to open the way for its competitor, science, to become active in the other fields.

With this, the sciences separated from philosophy, and the specific tools and scope of each were determined. Thus, philosophy manipulates the syllogism as a rational tool

of thought. Science, on the other hand, employs the empirical method and moves from particulars to higher laws. Similarly, every science treats a branch or a kind of .existence proper to it and can be subject to experimentation

One investigates the phenomena and laws of science in light of the experiments that .one carries out

p: ۱۱۳

Philosophy, on the other hand, treats existence in general, without limitation or restriction. It investigates its phenomena and principles that do not submit to direct (experimentation. (p. ۹۵

Thus, while the natural scientist investigates the law that governs the expansion of corporeal particles by heat, and the mathematician investigates the mathematical proportion between the diameter of a circle and its circumference the philosopher investigates whether there is a first principle of existence from which the whole universe proceeded, the nature of the relation between the cause and effect, and whether it is possible for every cause to have (another] cause, [and so on) to infinity. He also investigates whether the human essence is purely material or a mixture of .matter and spirit

It is clear at first sight that it is possible to subject to experimentation the content of the issues raised by the scientist. Thus, it is possible for experimentation, for example, to provide evidence that the corporeal particles expand by heat, and that the diameter multiplied by ۳.۱۴ over ۱۰۰ [□ X d] equals the circumference of the circle. But .the direct nature of philosophical issues is the contrary of this

The first principle, the nature of the relation between the cause and effect, the infinite progression of causes, and the spiritual element in human beings are metaphysical matters to which sense experience does not extend, and which cannot be observed .under the factory lights

Thus, the duality between philosophy and science developed because of their

disagreement on the tools

p: ۱۱۴

and subjects of thought. This duality or this division of intellectual tasks between philosophy and science seemed proper and accepted by many rationalists who adopt the rational method of thinking, and who admit that there are primary, necessary .principles of human knowledge

Naturally the defenders of the empirical doctrine, who accepted nothing but sense experience, and had no faith in the rational method of thinking, launched a strong attack against philosophy as a field independent of science. This is because they do not admit any knowledge that does not rest on experience. As long as the subjects of philosophy lie outside the sphere of experience and experimentation, there is no hope .for philosophy's arriving at sound knowledge

Therefore, according to the empirical doctrine, philosophy must (p. ۹۶) abandon its task and admit modestly that the only field that human beings can study is the experimental field that the sciences have divided among themselves, leaving nothing .for philosophy

From this we learn that philosophy's lawful existence is linked to the theory of knowledge and to the faith in, or rejection of, the rational method of thinking that this theory asserts. On the basis of this, a number of modern schools of materialistic philosophy attacked the independent existence of philosophy which is established on the ground of the rational method of thinking. They also permitted the establishment of a philosophy that rests on the ground of the intellectual sum of all the sciences and empirical experiences, and that is not distinguished from science in

p: ۱۱۵

.method and subject

This scientific philosophy can be employed to uncover the relations and links among the sciences, and to postulate general scientific theories based on the outcome of

experiments in all the scientific fields. Similarly, every science has its own philosophy which determines the methods of scientific investigation in that specific field. .Foremost among these schools is positivist materialism and Marxist materialism

The Positivist School and Philosophy .۵

The seed of the positivist school in philosophy germinated during the nineteenth century, in which the empirical tendency prevailed. Thus, this school developed under the auspices of this empirical tendency. For this reason, positivist materialism launched a 'bitter attack through accusations against philosophy and its metaphysical .subjects

But it was not satisfied with making the accusations against metaphysical philosophy .that proponents of the empirical doctrine usually make against philosophy

It did not limit itself, for example, to the assertion that the philosophical propositions are useless for practical life and cannot be demonstrated by the scientific method. Rather, the positivists went on to assert that these are not propositions in the logical sense, in spite of their having the form (p. ۹۷) of a proposition in their linguistic .construction, because they have no meaning at all

They are empty phrases and nonsensical expressions, and as long as they are such, they cannot be the subject of any kind of investigation. For only comprehensible phrases, not empty expressions and nonsensical utterances, are worthy of .investigation

The philosophical propositions are empty phrases having no meaning by virtue of the criterion for comprehensible

p: ۱۱۶

phrases laid down by the positivist school. It estimates that a proposition does not become a comprehensible phrase, and consequently a complete proposition in the logical sense, unless the concept of the world is different in the case of the truth of the .proposition from what it is in the case of the falsity of that proposition

If you say, for example: 'The cold is intensified in winter,' you find that in the case of the truth of this phrase, there is a specific concept and proper sensible givens of the actual world; while in the case of its falsity, there is another concept and other givens .of this world

Owing to this, we are able to describe the actual circumstances in which we know the truth or falsity of the phrase, as long as there is a difference in the actual world between the fact that the proposition is true and the fact that it is false. But take the following philosophical proposition: 'For everything, there is a substance in addition to .its sensible givens

The apple, for example, has a substance which is the apple in itself, over and above what we perceive of the apple by sight, touch, and taste.' You will not find a difference in external reality between the fact that this proposition is true and the fact that it is .false

This is evidenced by the fact that if you conceive of the apple as having a substance in addition to what you perceive

p: ۱۱۷

of it by your senses, and then conceive it as not having such a substance, you will not .see a difference between the two conceptions

The reason is that you will not find in either conception anything other than the sensible givens, such as color, odor and texture. But as long as we do not find in the conception that we have sketched for the case of truth anything that distinguishes it from the conception that we have sketched for the case of falsity, the above-mentioned philosophical phrase must be a meaningless discourse, since it does not .provide any information about the world

The same is true of all philosophical propositions that treat metaphysical subjects. These are not comprehensible phrases, due to the fact that they do not meet the basic condition for the comprehensibility of phrases - this condition being the ability to

describe (p. ٩٨) the circumstances in which the truth or falsity of a proposition is .known

That is why it is not appropriate to describe a philosophical proposition as true or false, because truth and falsity are attributes of comprehensible phrases, and the .philosophical proposition has no meaning that would make it true or false

We can now summarize the qualities that the positivist school attributes to :philosophical propositions

It is not possible to confirm the philosophical proposition, because the subjects it .treats lie beyond the sphere of experimentation and human experience

It is not possible for us to describe the conditions which, if obtained, the proposition would

p: ١١٨

be true; otherwise, it would be false. This is so, because in the concept of actuality, .there is no difference between whether the philosophical proposition is true or false

Due to this, the philosophical proposition is meaningless, since it does not give any .information about the world

.On the basis of this, it is inappropriate to describe it by truth or falsity

Let us take up the first quality - namely, that the philosophical proposition cannot be confirmed. This point repeats what the proponents of the empirical doctrine reiterate in general. These proponents believe that sense experience is the primary source and .highest instrument of knowledge

But sense experience cannot exercise its function on the philosophical level, because the subjects of philosophy are metaphysical and [therefore], are not subject to any kind of scientific experience. If we rejected the empirical doctrine and demonstrated that at the heart of the human intellect there is prior knowledge on which the scientific edifice in the various fields of sense experience is based, we could reassure [others]

about the human mind's potentialities and capacities to study the philosophical propositions, and to investigate them in light of this (p. ۹۹) prior knowledge by the .method of induction and the descent from the general to the particular

Regarding the second quality - namely, that we cannot describe the conditions under which, if they obtained, the proposition would be true; otherwise, it would be false -it is still in need of some clarification. What are these actual conditions and sensible

p: ۱۱۹

?givens to which the truth of the proposition is linked

Further, does positivism consider it a condition of the proposition that its evidence must be a sensible given, as in the statement: 'The cold is intensified in winter, and rain falls in that season'? Or is it satisfied that the proposition has sensible givens, ?even though it may have them indirectly

If positivism rejects every proposition except if its evidence is a sensible given and an actual condition subject to sense experience, then positivism will not only eliminate philosophical propositions, but will also reject most scientific propositions that do not express a sensible given, but a law derived from the sensible givens, such as the law .of gravity

For example, we perceive the fall of the pencil from the table to the ground, but we do not perceive the gravity of the ground. The pencil's fall is sensibly given and is linked .to the scientific implication of the law of gravity

However, this law itself is not sensibly given directly. If positivism is satisfied with that which is sensibly given indirectly, then philosophical propositions have indirect sensible givens, exactly as a number of scientific propositions do; that is, there are sensible givens and actual conditions that are linked to the philosophical proposition. If such givens and conditions are available, the proposition is true; otherwise, it is .false

Take, for example, the philosophical proposition that asserts the existence of a first

cause of the world. Even if the content of this

p: ١٢٠

proposition has no direct sensible givens, still the philosopher can reach it by way of the sensible givens that cannot be explained rationally except by means of the first .cause. This will be pointed out in future discussions in this book

Positivism can say one thing regarding this point: the derivation of the rational content of a philosophical proposition from the sensible givens does not (p. ١٠٠) rest on .empirical grounds, but on rational grounds

This means that rational knowledge determines the explication of the sensible givens by supposing a first principle, rather than that sense experience proves the impossibility of such givens without the first principle. Unless sense experience proves this [impossibility], such givens cannot be considered even as indirect givens of the .philosophical proposition

This assertion is nothing but another repetition of the empirical doctrine. If, as we learned earlier, the derivation of general scientific notions from the sensible givens depends on prior rational knowledge, then the philosophical proposition is not harmed if it is linked to its sensible givens by means of rational links, and in light of prior .knowledge

Until now, we have not found anything new in positivism other than the givens of the empirical doctrine and its notions concerning philosophical metaphysics. The third quality, however, appears to be something new. This is because there, positivism asserts that the philosophical proposition has no meaning whatsoever, and cannot even be considered a proposition. Rather, it is something that resembles a .proposition

We can say that this accusation is the strongest

p: ١٢١

blow that the philosophical schools of the empirical doctrine direct against philosophy. Let us, therefore, discuss its content carefully. However, in order for us to be able to do so, we must know exactly what positivism intends by the term 'meaning' in the statement: 'The philosophical proposition has no meaning' -, even though this term .can be explained in language dictionaries

Professor Ayer,(١) a leading figure of modern logical positivism in England, responds by saying that, according to positivism, the term 'meaning' signifies the idea whose truth or falsity one can affirm within :he limits of sense experience. Because this is not possible in a philosophical proposition, such a proposition, therefore, is meaningless. ((p. ١٠١

In light of this, the phrase, 'The philosophical proposition is meaningless', becomes exactly equivalent to the phrase, 'The content of the philosophical proposition is not subject to sense experience, because it is related to what is beyond nature'. With this, positivism would have asserted an indubitable and an indisputable truth - namely, that the subjects of philosophical metaphysics are not empirical. But it would not have offered anything new except a development of the term 'meaning', and a merging of .sense experience with it

However, stripping the philosophical proposition of meaning in light of this development of the term does not contradict the admission that it has meaning in .'another use of the term, in which 'sense experience' is not merged with 'meaning

I do not know what Professor Ayer and other similar positivists would say about the propositions

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Alfred Ayer, English philosopher (-١٩١٠). He is a logical empiricist. He holds that -١ genuine statements are either factual or analytic. The criterion for the significance of the former kind of statements is their verifiability. However, he does not go as far as the logical positivists in asserting that by verifiability is meant the conclusive establishment of a factual statement in experience, but only that such a statement be

rendered probable by experience. His main writings are: Language, Truth and Logic, The Foundations of Empirical Knowledge, Philosophical Essays and Philosophy and .Language

that are related to the sphere of nature, and whose truth or falsity a human being cannot assert by means of sense experience. If we say, for example, 'The other side of the moon which does not face the earth is full of mountains and valleys', we will not have – and we may not be given the opportunity in the future to have – the empirical capabilities for discovering the truth or falsity of this proposition, even though it is .concerned with nature

Can we consider this proposition empty or meaningless, when all of us know that science often presents propositions of this kind for exploration, before it acquires a decisive sense experience concerning them? It continues to search for a light that it can shed on them, until at last it either finds it or fails to do so. What, then, is all this scientific effort for, if every proposition, whose truth or falsity is not evidenced by ?sense experience, is an empty and a nonsensical phrase

In this respect, positivism attempts to make some revisions. It asserts that what is important is logical possibility and not actual possibility. Thus, every proposition is meaningful and worthy of discussion, if it is theoretically possible to achieve a sense experience that gives guidance concerning it, even if we do not actually have such an .experience

We see in this attempt that positivism has borrowed a metaphysical notion (p. ١٠٢) to complete the doctrinal structure it had established for the purpose of destroying

p: ١٢٣

metaphysics. This notion is the logical possibility, which it distinguished from the actual possibility. If this were not so, then what is the sensible given of the logical ?possibility

Positivism states that if a sense experience does not have real possibility, then what

meaning will its logical possibility have, other than its metaphysical meaning that does not affect the picture of external reality, and in whose respect the sensible givens do not differ? Is it not the case that the positivist criterion for the comprehensibility of phrases has become, in the, last analysis, metaphysical, and, consequently, an ?incomprehensible phrase, according to positivism

Let us leave aside Professor Ayer and take the word 'meaning', in its traditional sense – that is, without merging it with 'sense experience'. Can we now judge the philosophical proposition to be empty of meaning? The answer is indeed, No. After all, .the meaning is the conception that the expression reflects in the mind

The philosophical proposition reflects conceptions of this sort in the minds of its proponents and opponents alike. As long as there is a conception that the philosophical proposition gives to our minds, then there is room for truth and falsity; consequently, there is a complete proposition worthy of the name [proposition] in the logical sense. If the conception that the philosophical proposition gives to our minds corresponds to an objective thing outside the limits of the mind and expression, the .proposition is true

,If not, then it is false. Truth and falsity and, hence

p: ۱۲۴

the logical mark of the proposition, are not given by sense experience so that we can say that a proposition which is not subject to sense experience cannot not be described by truth or falsity. Rather, they are two expressions in the form of affirmation or negation concerning the correspondence between the concept of a proposition in the mind and any fixed objective thing external to the mind and to the .expression

Marxism and Philosophy .۶

The Marxist position regarding philosophy is essentially similar to the position held by positivism. Marxism completely rejects a higher philosophy which is imposed on the sciences, and which does not proceed (p. ۱۰۳) from them. This is because Marxism is

.empirical in its outlook and method of thinking

Therefore, it is natural that it does not find room for metaphysics in its investigations. Due to this, it calls for a scientific philosophy -that is, dialectical materialism. It claims that this philosophy rests on the natural sciences and draws its strength from the (scientific development in various fields. Here is a passage from Lenin:(۱

Dialectical materialism is no more in need of a philosophy higher than the other sciences. The only thing that remains of ancient philosophy is the theory and laws of (the mind, i.e. formal and dialectical logic.(۲

:Also, Roger Garaudy(۳) makes the following statement

To be exact, the task of the materialist theory of knowledge will be never to cut off (philosophical thought from scientific thought or from historical practical activity.(۴

In spite of Marxism's insistence on the

۱- Vladimir Ilyich Ulyanov Lenin, founder of the Soviet Union (۱۸۷۰-۱۹۲۴). He was exiled from Russia ۱۹۰۵-۱۷ as a result of the leading role he played in the revolution of ۱۹۰۵. From ۱۹۱۸ to ۱۹۲۴, he was the head of state and leading Marxist theoretician. His best-known works are Materialism and Empiro-criticism, and Imperialism, Final Stage of .Capitalism

۲- Lenin, Marx, Engels and Marxism, p. ۲۴

۳- Roger Garaudy, Professor of Philosophy at Poitiers University and member of the Politburo of the French Communist Party (۱۹۰۹۱. In ۱۹۶۵, he spoke at a number of American universities, including Harvard, St Louis and Temple. His best known work is: .La Liberte en Sursis

۴- .Ma Hiya al-Madda, p. ۴۶

scientific character of its philosophy and its rejection of any kind of metaphysics, we find that the scientific limits of investigation do not restrict its philosophy. The reason

is that the philosophy, which issues from the scientific experience, must exercise its .function in the scientific field, and not step beyond it to other fields

According to Marxism, even if the proper field of a scientific philosophy, such as that of Marxism, is broader than any other field specified for any science, since it is guided by the various sciences; still, it is not at all permissible that it be broader than all the scientific fields put together - that is, than the general scientific field which is the nature that can be subjugated to sense experience or to organized empirical (observation. (p. ۱۰۴

It is not the job of scientific philosophy to treat metaphysical issues in its discussions, and to judge them either affirmatively or negatively. The reason is that its scientific resources do not provide it with any [information] concerning such issues. Thus, it is not the prerogative of scientific philosophy to judge, whether affirmatively or negatively, the following philosophical proposition, 'There is a first metaphysical principle of the world', for the content of such a proposition lies outside the realm of .sense experience

In spite of this we find that Marxism takes up this kind of proposition, and responds to it by negation. This makes it rebel against the limits of scientific philosophy and move .to a metaphysical discussion

p: ۱۲۶

This is so, because negation concerning metaphysical issues is the same as affirmation; that is, both belong to metaphysical philosophy. With this, contradiction appears between the limits at which Marxism must stop in its philosophical investigation, since it is characterized by having a scientific philosophy and by its .advance in investigation to broader limits

After Marxism linked its philosophy to science, asserting that the philosophical outcome must be in agreement with the natural sciences and the participation of philosophy in the development and integration of science, as a result of the rise [in emphasis on] sense experience and its profundity with the passage of time, it was

natural for it to reject every philosophical preoccupation [with anything] beyond .science

This resulted from the mistake of Marxism in the theory of knowledge and its faith in sense experience alone. On the contrary, in light of the rational doctrine and the faith in prior knowledge, philosophy rests on fixed fundamental principles. These principles are pieces of a prior rational knowledge that is absolutely fixed and independent of sense experience. Due to this, it is not necessary that the philosophical content .continuously change as a result of empirical discoveries

We do not intend by this to break the link between philosophy and science. The link between them is firm indeed. At times, science presents philosophy with particular facts (p. ۱۰۵) in order that philosophy may apply its principles to such facts; so that, it could introduce new philosophical conclusions.(۱) Similarly, philosophy assists the empirical method in

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۱- This is exemplified in the fact that the natural sciences demonstrate the possibility of transferring simple elements into simpler elements. This is a scientific truth which philosophy treats as a subject of its investigation, and to which it applies the rational law that states that an essential quality is never absent from the thing. From this, we conclude that the form of the simple element, such as the form of gold, is not essential for the matter of gold; otherwise, it would be inseparable from it. Rather, it is an accidental quality. But philosophy goes further than this. It applies the law that states that for every accidental quality there is an external cause. Thus, it reaches the following conclusion: 'In order for matter to be gold, brass, or something else, it is in need of an external cause.' This is a philosophical conclusion resting on the general rules to which the rational method led in its application to the raw material that .science presents to philosophy

science by means of rational principles and rules which the scientist employs for the purpose of moving from direct experience to a general scientific law.(۱)

Therefore, the link between philosophy and science is strong.(۲) Yet in spite of this, philosophy (p. ۱۰۶) may at times not need any sense experience. Rather, it draws the philosophical theory from prior rational knowledge.(۳) Because of this we said that it is not necessary for the philosophical content to change continuously as a result of empirical experience. Nor is it necessary for the whole of philosophy to accompany .the procession of science in its gradual march

Chapter Two: The Value of Knowledge

point

In the previous investigation, we studied the primary sources of knowledge or of human perception in general. We will now treat knowledge from another point of view in order to determine its objective value and the possibility of its disclosure of reality. The only way available for mankind to capture the essence of reality and to uncover the secrets of the world is through the totality of the sciences and the knowledge that .they possess

Therefore, before anything, we must inquire as to whether this way can really lead to the goal, and whether human beings are capable of grasping an objective reality by .means of the intellectual knowledge and capacities that they possess

Regarding this issue, Marxist philosophy believes that it is possible for one to know the world, and that the human mind is capable of discovering objective realities. [In other words], it rejects doubt and

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۱- Examples of this were offered earlier. We saw how the scientific theory stating that motion is the cause or substance of heat requires a number of prior rational .principles

۲- So that it would be possible to say in light of what we have determined - contrary to the general tendency we have followed in the book - that there is no dividing line between the laws of philosophy and the laws of science. Such a dividing line is

exemplified in the statement: 'Every law resting on rational grounds is philosophical, and every law resting on empirical grounds is scientific.' For we knew with clarity that the rational grounds and sense experience merge in a number of philosophical and scientific propositions. The scientific law is not the product of sense experience alone. Rather, it is the product of the application of the rational principles to the content of scientific experience. Nor can the philosophical law always dispense with sense experience. Rather, scientific experience may be a subject of the philosophical investigation or a minor premise in the syllogism, as Aristotelian logic teaches. The difference between philosophy and science is that philosophy may not need an empirical minor premise, nor does it need to borrow raw material from sense experience, as we will soon point out. Science, on the other hand, requires organized .empirical experience for all its laws

٣- An example of this is the law of finitude, which states that causes do not ascend infinitely. When philosophy admits this law, it does not find itself in need of any scientific experience. Rather, it draws it from primary rational principles, even if .indirectly

.sophistry

In contrast to idealism which denies the possibility of knowing the world and its laws, which sees no value to our knowledge, which does not admit objective reality, and which believes that the world is full of things subsisting by themselves and which science will never get to know, the Marxist philosophical materialism rests on the principle which states that it is possible to have exact knowledge of the world and of .its laws

Our knowledge of the natural laws, which is the knowledge achieved by practice and sense experience, is valuable and signifies objective reality. The world does not contain anything that cannot be known. Rather, it contains certain things that are still unknown, but that will be discovered, and will become known by means of the (p. ١٠٨) scientific and practical methods.(١)

:Again

The strongest refutation of this philosophical illusion, i.e. the illusion of Kant, Hume and other idealists, as well as of every other philosophical illusion is practice, sense .experience and industry in particular

Thus, if we can prove that we comprehend accurately a natural phenomenon, i.e. a phenomenon which we have not created ourselves, or made it occur by means of fulfilling its conditions in themselves; and further still, if we can employ this phenomenon in achieving our goals; then this would be a decisive blow to the Kantian (notion of the thing in itself which is inaccessible to knowledge.(۲

These declarations show clearly that Marxist philosophy was not satisfied with taking the side of sophistry and

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.Al-Maddiyya ad-Dialaktikiyya wal-Maddiyya at-Tarikhiyya, p. ۱۷ -۱

Ludwig Feuerbach, p. ۵۴ -۲

the schools of denial or skepticism that declared their bankruptcy in the philosophical field. This is because the edifice that Marxism wished to erect must be based on absolute philosophical principles and decisive rules of thought. Unless the principles are certain, then the intellectual edifice that is based on them, cannot be solid and .firm

Now, we would like to try to know whether it is appropriate for this kind of philosophy to claim for itself philosophical certainty, and to claim further that decisive knowledge is possible. In other words, can Marxist philosophy, whose method of thought is along dialectical lines, assert a true knowledge of the world and its laws, and free itself from ?the grip of skepticism and sophistry

Put differently, is the philosophy in which the Marxist philosopher rejoices of a higher value and a superior character than knowledge in the philosophy of Kant, (p. ۱۰۹) the idealists, and the relative materialists who were among the philosophers of the ?schools of skepticism that were criticized and attacked by Marxism

In order for us to understand the problem, to find out whether it is possible to solve it on the basis of Marxist philosophy, and to understand the point of view of Islamic philosophy concerning it, we must mention briefly the most important philosophical doctrines that dealt with it, in order that the following will be clearly determined: the position of Marxism regarding this problem, the kind of view that Marxism must adopt in accordance with its main principles, and

.the analysis and scrutiny that this problem merits

The Views of the Greeks .۱

In the fifth century B.C., a wave of sophistry pervaded Greek thought at a time in which the method of disputation spread in the fields of rhetoric and law, and philosophical views and non-empirical assumptions strongly clashed. Philosophical thought had not yet crystallized, nor had it reached a high degree of intellectual .maturity

Thus, such a conflict and clash among the contradictory philosophical views were the cause of intellectual confusion and deep fear. The habit of disputation nourished that situation by means of ambiguities and invalid syllogisms which it provided to its disputant heroes. On the basis of such ambiguities and invalid syllogisms, these heroes denied the world by rejecting all the human intellectual principles as well as .the sensible and intuitive propositions

Gorgias,(۱) one of the prominent leaders of this school, wrote a book on non-existence. In this work, he tried to prove a number of points: (۱) nothing exists; (۲) if anything exists, one cannot know it; (۸) if we assume that one can know it, one cannot (communicate it to others. (p. ۱۱۰

For quite a while, sophistry had expressed in various ways its disregard for philosophy and science, until Socrates, Plato and Aristotle emerged and held strong positions against it. Aristotle laid down his well-known logic for discovering the sophistical fallacies and for organizing human thought. His epistemological doctrine may be

.summarized as follows

Sense knowledge and primary or secondary rational knowledge, which are acquired by taking into consideration logical principles, are

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Gorgias of Leontini, Greek philosopher, orator and teacher of rhetoric (۴۸۳-۳۸۰ B.C.). -۱ He was born in Sicily and moved to Greece, and he spent most of his life in Athens. He was known as a leader of sophistry who plays a central role in Plato's dialogue, Gorgias. In this dialogue the thesis held is that rhetoric is the art of persuasion which results in belief about just and unjust things. His best known work, which is lost, is On Nature or the Non-existent. In it Gorgias argues as follows. (۱) Nothing exists. if it does, it must come out of nothing or out of something. It is impossible that something comes out of nothing. Also, on the basis of Eleatic philosophy, it cannot come out of something else. (۲) If anything exists, it cannot be known, since thought and things are different. (۳) If anything can be known, it cannot be communicated, since intention .and understanding are different

truths with an absolute value. Due to this, Aristotle permits in demonstration (the absolute evidence in his logical sense) the use of both sense knowledge and rational .knowledge

Later, an attempt was made to reconcile the two opposite tendencies - that is, the tendency leaning toward absolute denial (sophistry), and the tendency asserting affirmation (Aristotelian logic). This attempt was represented in the skeptical doctrine thought to have been founded by Pyrrho(۱) who is known for his ten proofs for the necessity of absolute doubt. According to Pyrrho, every proposition can be stated in .one of two ways: it can be either affirmed or denied with equal force

But the doctrine of certitude finally prevailed in the philosophical field, and reason mounted the throne given to it by Aristotle, judging and making decisions while bound .by the logical criteria

The fire of doubt died down for centuries, until around the sixteenth century when the natural sciences became active and made discoveries of unexpected truths, especially in astronomy and the general order of the universe. These scientific developments were similar to the force of disputation in the Greek period. Thus, they revived the doctrines of doubt and denial which resumed their activities with various methods. A conflict arose among the upholders of certitude themselves concerning (the limits of certainty on which human beings must depend. (p.۱۱۱

Descartes emerged in this atmosphere, which was saturated with the spirit of doubt and rebellion against the authority of mind. He presented the world with a philosophy of certitude

p: ۱۳۲

Pyrrho, Greek philosopher (۳۶۰-۲۷۰ B.C.). Pyrrho was a skeptic who taught the - ۱ following. It is impossible to know the nature of anything. Every statement has its contradictory which is equal to it in validity. Since this is so, judgement must be suspended. But since judgement must be suspended, silence must be maintained with regard to all things. This requires that a human being must withdraw into himself and .live in serenity

that had a great influence on bringing back some degree of certitude to the .philosophical tendency

Descartes .۲

Descartes is one of the prominent rationalists, and one of the founders of the philosophical renaissance in Europe. He began his philosophy with sweeping and stormy doubt. [He reasoned that] because ideas are incompatible, they are, .therefore, susceptible to error

Sense perception, too, is often deceptive; therefore, it must also be discounted. With these two considerations, the wave of doubt raged, rooting out the material and the spiritual worlds, since the way to both of these worlds is through ideas and sense

.perception

Descartes insists on the necessity of this absolute doubt. He demonstrates its logic by the fact that it is possible for a human being to be at the merry of a power that takes .hold of his existence and mind, and that attempts to deceive and mislead him

Thus, it inspires him with ideas that do not correspond to reality, and with false perceptions. Regardless of the clarity of such ideas and perceptions, we cannot .discount this assumption, which requires us to take doubt as a perpetual doctrine

However, Descartes excludes one truth which stands firm in the face of the storm and is unshaken by the tendencies of doubt - this truth being his thought, which is an indubitable, actual reality. Doubt does not affect it, except perhaps by strengthening .its stability and clarity; for doubt is nothing but a kind of thought

Even if that deceptive power were to exist, it could not

p: ۱۳۳

deceive us with regard to our conviction about this thought. The reason is that it would have to deceive us by way of inspiring us with false ideas. This means that thought is a fixed truth in (p. ۱۱۲) any case; that is, whether the issue of human thought is one of deception and misguidance, or one of understanding and .determination

This truth, then, is the cornerstone of Descartes' philosophy, and the point of departure for philosophical certitude. By means of this truth, Descartes tried to move from conception to existence, and from subjectivity to objectivity. Indeed, by means of it, he tried to prove both the subject and the object. Thus, he began with himself. (He demonstrated his existence by this truth, saying: 'I think, therefore, I exist.'(۱

One may notice that this Cartesian proof contains an unconscious acceptance of truths that, for Descartes, are still subject to doubt. This proof is a non-technical .expression of the first figure of the syllogism in Aristotelian logic

Technically, it takes the following form: 'I think, every thinker exists, therefore I exist.' In order for this Cartesian reasoning to be valid, Descartes must accept logic, and believe that the first figure of the syllogism yields a conclusion and that its conclusion is true, even though he is still at the beginning of the first stage, and doubt in his mind .is still in control of all knowledge and truths, including logic and its rules

We must warn against the fact that when Descartes began

p: ۱۳۴

See The Philosophical Works of Descartes, translators Elizabeth S. Haldant and – ۱ .G.R.P. Ross, Cambridge University Press (۱۹۶۷), II, ۱۰۱

the demonstrative stage of his thought by 'I think, therefore, I exist', he had not felt the need for accepting the syllogistic figures in logic. Rather, he believed that knowledge of his existence by way of his thought is an intuitive matter that does not require the construction of syllogistic figures and the acceptance of their minor and .major premises

Since the proposition, 'I think, therefore, I exist', is true because it is intuitive, such that it is not subject to doubt, anything of the same degree of intuitiveness is also true. With this, Descartes added another proposition to the first intuitive proposition, (and admitted as true that a thing does not come out of nothing. (p. ۱۱۳

After he accepted the subjective side, he went on to prove the objective reality. Thus, :he arranged human thought in three groups

I. Instinctive or natural ideas. These are the natural human ideas that appear most .evident and clearest, such as the ideas of God, motion, extension, and the soul

II. Vague ideas that occur in the mind on the occasion of motions that come to the .senses from without. These have no foundation in the human mind

III. Various ideas that human beings construct and compose from their other ideas. .These are exemplified in the idea of a human being having two heads

Descartes began by addressing the idea of God in the first group. He decided that it is an idea having an objective reality, since in its objective reality, it is superior to the human

p: ۱۳۵

thinker and all his ideas. This is because the human thinker is deficient and limited; while the idea of God is the idea of a being absolutely perfect and infinite. Because Descartes had already accepted the view that a thing does not come out of nothing, .he knew that there is a cause of this natural concept in his mind

He himself cannot be the cause of it, since it is more sublime and complete than he is. A thing cannot be more sublime than its cause; otherwise, increase [in the value of the] caused object would come out of nothing. Thus, the idea of God must have proceeded from an infinite being whose perfection and greatness are equal to its own. This being is the first external objective reality that Cartesian philosophy admits .– this reality being God

By means of this absolutely perfect being, Descartes proved that every natural thought in the human nature is true and reflects an objective reality. This is because the rational ideas in the first group proceed from God. Thus, if they are not true, (p. ۱۱۴) then their being given by God to human beings would be deceptive and dishonest. .But this is impossible in the case of a being who is absolutely perfect

Because of this, Descartes accepted the human innate or rational knowledge and the fact that it is valid and true. He accepted the innate ideas only, to the exclusion of any other ideas that proceed from external causes. As a

p: ۱۳۶

result of this, he divided ideas concerning matter into two types: (۱) the innate ideas, such as the idea of extension; and (۲) ideas that occur [later] and express specific reactions of the soul, caused by external influences, such as the ideas of sound, odor, .light, flavor, heat and color

The former are real primary qualities, while the latter are secondary qualities that do not express objective realities. Rather, they represent subjective reactions. They are successive mental concepts that arise in the mental realm due to the influence of .external bodies to which they have no resemblance

This is a very brief presentation of the Cartesian theory of knowledge. To begin with, we must know that the fundamental principle on which Descartes based his doctrine and philosophical certitude, 'I think, therefore, I exist', was criticized in Islamic philosophy a few centuries prior to Descartes' time. Ash-Shaykh ar-Ra'is, Ibn Sina,(١) presented it and criticized it as being unfit as a method of scientific evidence for the .existence of the human thinker himself

A human being cannot prove his existence by means of his thought. This is so, because if by saying, 'I think, therefore, I exist', he wishes to prove his existence by means of his specific thought only, then he proves his specific existence at the outset and admits his existence in the very first phrase. If, on the other hand, he (p. ١١٥) wishes to make the absolute thought as an evidence of his existence, he is at fault, because an

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Ibn Sina known to the West as Avicenna (A.D. ٩٨٠-١٠٣٧). Even though he excelled .in -١ many areas, such as medicine, astronomy, physics and poetry, he is best known for being one of the most original and important Muslim philosophers. His early philosophical career is characterized by Aristotelianism, but his later works show a tendency to mysticism. His most important works are: ash-Shifa' (an encyclopedic work covering, among other things, logic, physics and metaphysics), an-Najat (a summary of ash-Shifa'), al-Isharat wat-Tanbihat (a late, and perhaps the latest work Ibn Sina wrote, consisting of four parts: logic, physics, metaphysics and sufism). He .also left a number of mystical treatises, such as Hayy Bin Yaqzan and Risalat at-Tayr

absolute thought asserts the existence of an absolute thinker, not a specific thinker. Thus, the specific existence of every thinker must be known to him in a primary

.manner, regardless of any considerations, including his doubt and his thought

Subsequently, we find Descartes erecting the whole edifice of existence on one point – namely, that the ideas which God created in human beings signify objective realities. If they did not do so properly, God would be a deceiver. But it is impossible for God to .deceive

It is easy to see in Descartes' proof the confusion between reflective knowledge and practical knowledge. The proposition, 'Deception is impossible', is an unfaithful translation of the proposition, 'Deception is abominable'. But this latter proposition is .not a philosophical proposition

Rather, it is a practical idea. How, then, did Descartes doubt everything, without doubting this practical knowledge on which he based the philosophical reflective knowledge? In addition, the succession of knowledge plays a clear role in the Cartesian doctrine. When he accepted the theological position, he based his acceptance on a proposition whose truth is accepted a priori: 'A thing does not come '.out of nothing

But this proposition in turn requires an affirmation of the theological position, in order to secure its truth. Unless it is shown that human beings are ruled by an undeceptive, wise power, it is not permissible for Descartes to accept this proposition and .terminate his doubt concerning a deceptive power in control of the human mind

Finally, there is no need

p: ۱۳۸

for us to point out another confusion that Descartes made between the idea of God and the objective reality that this idea signifies, when he asserts that it is impossible for this idea to proceed from human beings, since it is more sublime than they are. The truth is that this idea is not more sublime than human minds. Rather, it is (impossible for human beings to create the objective reality of this idea (p. ۱۱۶

Actually, our purpose is not to elaborate the discussion on Descartes. Rather, we

intend to present his point of view regarding the value of human knowledge, a view that may be summed up in the acceptance of the absolute value of rational .knowledge, especially innate knowledge

John Locke .۳

Locke is a primary representative of the empirical or experiential theory, as we learned earlier. His view concerning the theory of knowledge is that knowledge is :divided into the following types

I. Intuitive knowledge (al-ma'rifa al-wijdaniyya): this is the knowledge the mind can attain without need for recognizing something else. An example of this is our .knowledge that one is half of two

II. Reflective knowledge (al-ma'rifa at-ta' ammuliyya): this kind of knowledge cannot occur without the help of previous information. An example of it is our knowledge that .the sum of the angles of a triangle is equal to two right angles

.III. Knowledge that results from empirical knowledge of the known object

Locke believes that intuitive knowledge is real knowledge, having complete philosophical value. The same is true of the reflective knowledge

p: ۱۳۹

that can be clarified as valid reasoning. As for empirical knowledge, it has no philosophical value, even though it is taken into the consideration of the standard of practical life. Due to this, Locke does not accept the objectivity of all of the qualities of matter that are known by the senses. Rather, he considers some of them real and objective, such as form, extension and motion, and some others subjective reactions, .such as color, flavor, odor and other similar qualities

This very Lockean theory of knowledge and its philosophical weight are not in agreement with Locke's own view of the analysis of knowledge. For all knowledge, according to him, is derived (p. ۱۱۷) from the senses and sense experience. Even

intuitive knowledge, such as the principle of noncontradiction and other similar primary principles in the human mind, is not possessed by human beings except in this .way

The senses, the primary source of this knowledge, do not have an absolute philosophical value in Locke's theory of knowledge. The natural conclusion to this is the absolute doubt concerning the value of any human knowledge, since in its essence and primary reality, knowledge is nothing but a sense perception acquired by .external or internal experience

Thus, it seems that Locke's division of knowledge into three groups, and his distinction among these groups from a philosophical point of view, are contradictory to the principles that he established. Similarly, his division of the qualities of sensible bodies, which is analogous to the Cartesian division, is not

p: ۱۴۰

logically consistent with his principles, even though it may be somewhat logically .consistent with Descartes' principles

This is because Descartes divides knowledge into rational knowledge and empirical knowledge, and accepts the former philosophically, but not the latter. He claims that people's ideas concerning some bodily qualities are among the innate rational ideas, while their ideas concerning some other bodily qualities are empirical. Due to this, it was possible for him to divide these qualities into primary and secondary, and to assert that the primary qualities are real and objective, while the secondary qualities .are not

As for John Locke, he began his philosophical endeavor by eliminating the innate ideas, and asserting the mastery of the senses over all knowledge. Thus, there is no way of knowing the bodily qualities except through the senses. What, then, is the ?philosophical difference between some of these qualities and some others

The Idealists .۴

Idealist doctrine has deep roots in the history of human thought, and is of various forms. The term 'idealism' is one of the terms that played an important role in (p. ١١٨) the history of philosophy. It exchanged a number of philosophical notions in which it .crystallized. Due to this, it acquired a kind of vagueness and confusion

Idealism played its first role in the philosophical tradition at the hands of Plato, who offered a specific theory of human reason and knowledge. This theory was called 'the theory of Platonic forms'. Plato was an idealist; however, his idealism does not mean a denial of sensible realities, or

p: ١۴١

a stripping of empirical knowledge from the objective realities that are independent of .the realm of conception and knowledge

Rather, he affirmed the objectivity of sense perception. He went further than this to affirm the objectivity of rational knowledge, which is superior to empirical knowledge, asserting that rational knowledge -that is, knowledge of general types, such as knowledge of the ideas of 'human being', 'water', and 'light', have an objective reality .independent of intellection, as was pointed out in the first part of this investigation

Thus, we learn that ancient idealism was a form of excessive acceptance of objective reality. This is because it accepted the objective reality of sense perception - namely, the knowledge of ideas pertaining to the senses - and of rational knowledge -that is, .the knowledge of ideas in general. It did not involve any denial or doubt of reality

In modern history, idealism took on a meaning completely different from the above-mentioned one. While Platonic idealism emphasized the objective reality of both rational and empirical knowledge, idealism in its modern form was an attempt to shake the foundation of objective reality and declare a new doctrine concerning the theory of human knowledge, by means of which it can eliminate the philosophical value of knowledge. Our concern in the present investigation is to explore and study

.this new notion of idealism

This notion was cast in various forms and shapes. (p. ١١٩) Some writers of philosophy went as far as to consider idealism as a description of any philosophy

p: ١۴٢

that rests on doubt, that involves an attempt to remove the objective aspect of things from the realm of human knowledge, or that asserts a metaphysical principle of the world. Thus, spiritualism, agnosticism, empiricism, rationalism, criticism and existential phenomenalism are all idealistic philosophies, according to such writers.(١)

In order to clarify the role of idealism in the theory of human knowledge, we will study the important tendencies of modern idealism. These are: (١) the philosophical tendency; (٢) the physical tendency; and (٣) the physiological tendency.

I. Philosophical Idealism

This form of idealism was founded by Berkeley, who is considered the leader of modern idealism. Berkeley's philosophy is viewed as the point of departure for the idealistic tendency or the conceptual bent in the recent centuries of philosophy.

The essence of idealism in Berkeley's doctrine can be recapitulated in his well-known phrase: 'To exist is to know or to be known.' (٢) In other words, it is not possible to assert the existence of a thing, unless that thing knows or is known. The thing that knows is the soul; and the known things are the conceptions and the ideas that subsist in the sphere of sense perception and knowledge.

Thus, it is necessary that we accept the existence of the soul and the existence of these ideas. As for the things that are independent of the sphere of knowledge - that is, the objective things - they are non-existent because they are not known.

Following this, Berkeley takes up for discussion the bodies that philosophers call

p: ١۴٣

.Ma Hiya al-Madda, p. ۵ -۱

The following are two passages that express Berkeley's view that unless a thing is -۲ a mind, the only way for it to exist is to be perceived or to be present to a mind. This is the only way, for example, in which sensible things can exist: Sensible things are all immediately perceivable; and those things which are immediately perceivable are ideas; and these exist only in the mind . . . . unto me it is evident . . . that sensible things cannot exist otherwise than in a mind or spirit. Whence I conclude, not that they have no real existence, but that seeing they depend not on my thought, and have an existence distinct from being perceived by me, there must be some other mind wherein they exist. As sure, therefore, as the sensible world really exists, so sure is there an infinite, omnipresent spirit who contains and supports it. (Dialogues Dolphin-Doubleday ed., pp. ۲۵۳-۶). That there is no substance wherein ideas can exist besides spirit, is to me evident. And that the objects immediately perceived are ideas, is on all hands agreed. And that sensible qualifies are objects immediately perceived, no one can deny. It is therefore, as evident that there can be no substratum of those qualities but spirit, in which they exist, not by way of mode or property, but as a thing perceived in that which perceives it. I deny therefore that there is any unthinking substratum of the objects of sense, and in that acceptation that there is any material substance. But if by material substance is meant only sensible body, that which is seen and felt (and the unphilosophical part of the world, I dare say, mean no more), then I stn more certain of matter's existence than you or any other . philosopher, pretend to be. If there be anything which makes the generality of mankind averse from the notions I espouse, it is a misapprehension that I deny the reality of sensible things: But as it is you are guilty of that and not I, it follows, that in truth their aversion is against your notions, and not mine. I do therefore assert chat I am as certain as of my own being, that there are bodies or corporeal substances (meaning things that I perceive by my senses); and that granting this, the bulk of mankind will take no thought about, nor think themselves considered in the fate of, those unknown natures and philosophical (quiddities which some men are so fond of. (Ibid., pp. ۲۸۰-۱

p. ۱۲۰) 'material substances' in order to eliminate them from the realm of existence.) He says that we do not grasp anything about matter that [philosophers] suppose

except a group of mental conceptions and sensible phenomena, such as color, taste, .shape, odor and other similar qualities

Berkeley pursues his idealistic notion of the world, saying that he is not a sophist or a skeptic about the existence of the world and its realities and beings. Rather, he admits that, from a philosophical point of view, al! of this exists, and that in this he does not differ from other philosophers. He differs from them only in the definition of the notion .of existence

Existence', according to him, does not have the same meaning that it has for others.' What exists to others also exists to Berkeley, but according to his own way of interpreting 'existence'. This means that the existence of a thing is nothing but its .existence in our knowledge of that thing

Later, Berkeley asked himself this question: 'If matter does not exist, then from where can we get the sensations that flow in us at every moment, without the influence of our personal will over their flow and succession?' Berkeley had the answer ready: God Himself causes these sensations in us. Thus Berkeley ends his philosophical endeavor by retaining for himself two realities in addition to knowledge. One of these realities is the mind, the knowing subject; and the other is God, the reality that creates our .sensations

This theory

p: ۱۴۴

completely eliminates the issue of human knowledge and the objective study of the value of knowledge; for this theory does not admit the objectivity of thought and (knowledge, or the existence of anything outside their limits. (p. ۱۲۱

Berkeley's idealistic notion suffers from some vagueness, which makes it possible to interpret this notion in a number of senses differing in the degree of idealism and depth of the conceptual bent. [Of these] we will take up the most idealistic sense - namely, the pure idealistic sense that does not admit anything except the existence of

.the knowing soul and the successive sense perceptions and knowledge in the soul

This sense is the best-known among his philosophical statements and is consistent with the proofs by means of which he tried to demonstrate his idealistic notion. The .proofs for this notion can be summarized as follows

The first proof is that all human knowledge is based on, and comes from, the senses. Thus, the senses are the primary principle of knowledge. If we attempt to examine .this principle, we find it charged with contradictions and errors

For example, the sense of sight is always [self]-contradictory with respect to its vision of bodies close up and at a distance. It perceives them as small in size when they are remote from it; while it perceives them as large when they are in its proximity. .Similarly, the sense of touch is also [self]-contradictory

Thus, by means of it, we may have two different pieces of knowledge about

p: ۱۴۵

the same thing. For the sake of clarification, Berkeley adds: immerse your hands in warm water, after you have immersed one of them in hot water, and the other in cold water. Would not the water appear cold to the hot hand, and hot to the cold hand? But should we then say that the water is hot and cold at the same time? Would not these ?words be fully nonsensical

Therefore, you must conclude with me that water in itself does not exist as a matter independent of our existence. It is nothing but a name that we give to our sense perceptions. Therefore, water exists in us. In short, matter is the idea that we posit about matter. If sense perceptions are empty of any objective reality pertaining to the contradictories recognized in them, then there will be no objective value of human knowledge at all; for knowledge in general would rest on the senses. If the basis (collapses, then the whole pyramid collapses. (p. ۱۲۲

But this proof has no value for the following reasons. First, not all human knowledge rests on the senses and sense experience. For rational doctrine, which we studied in

an earlier chapter of the investigation, 'the primary source of knowledge determines .the presence of necessary primary knowledge in the human mind

Such necessary knowledge does not arise from the senses, and no contradiction at all appears in it. One cannot root out such knowledge by the emotions that affect the senses and the sense

knowledge. As long as we possess knowledge free from the influence of emotions, it .will be easy to establish a sound objective knowledge on the basis of it

Second, this proof contradicts the philosophical principle of Berkeley's idealism -that is, the empirical theory and the empirical doctrine. For in this proof, Berkeley considers the principle of non-contradiction as a fixed truth and, from the very beginning, finds improbable the possibility of contradiction in objective reality. On the basis of this, he concludes from the contradictory knowledge and sense experience that they are empty of objective reality. It escapes him that the principle of non-contradiction in empirical doctrine is nothing but an empirical principle demonstrated .by sense experience

Thus, if knowledge and sense experience are contradictory, then how is it possible for Berkeley to accept the principle of non-contradiction and demonstrate by means of it ?the non-existence of objective reality

Further, why is it that, according to him, there cannot exist an objective reality in which phenomena and things contradict one another? The truth is that Berkeley unconsciously relied on his nature that asserts the principle of non-contradiction as .independent of the senses and sense experience

Third, it is necessary that we distinguish between two issues, one of which is the issue of the existence of the objective reality of knowledge and sense perception; and the other is the issue of the correspondence of this reality to what appears to us in our .knowledge and sense perception

If we distinguish between these two

issues, we will be able to know that the contradiction of sense perception cannot be taken as a proof of the non-existence (p. ۱۲۸) of an objective reality, as Berkeley thought. Rather, it indicates a non-agreement between the idea known by the senses and the external objective reality. This is to say that sense perception need not fully agree with external things. But this is different from Berkeley's attempt to deny the .objectivity of sense perception

When we immerse our hands in water and one of them feels hot, while the other feels cold, we are not required, for the purpose of eliminating contradiction, to deny the objectivity of sense perception absolutely. Rather, we can explain the contradiction in a different way namely, that our sense perceptions are nothing but psychological .reactions to external things

Thus, there must be an external thing if we are to have a sense perception or if we are to have a reaction. But it is not necessary that the sense perception agree with the objective reality; for, since sense perception is a subjective reaction, it is not .separate from the subjective aspect

On the basis of this, we can immediately judge that the water that Berkeley supposes to be warm and not to be hot or cold is the objective reality that causes in us the two contradictory sense perceptions, and that the two sense perceptions contradict one another due to the subjective aspect that we add to things when we know them or

.when we have reactions to them

The second proof is that the acceptance of the existence of things outside our souls and conceptions rests on the fact that we see and touch such things; that is, that we believe they exist because they provide us with certain sense perceptions. However, our sense perceptions are nothing but ideas contained in our souls. Therefore, the

things that our senses know are nothing but ideas, and ideas cannot exist outside our .souls

In this proof, Berkeley attempts to make the issue of accepting the objective reality of things dependent on direct conjunction with that reality. As long as it is not possible for us under any circumstances to have direct conjunction with things external to our souls, and as long as we are necessitated to know such things in our private conceptions and ideas, (p. ۱۲۴) then in truth, there is no existence except for these conceptions and ideas. If we destroy such conceptions and ideas, there will be nothing .left that we can know or whose existence we can admit

To begin with, we must notice that this argument, by means of which Berkeley attempts to demonstrate his idealistic notion, is unsound, even according to Berkeley himself. For he agrees with us, though unconsciously, that it is untenable and insufficient for justifying the idealistic notion. This is because it leads to subjective idealism that denies the existence of other individuals, as well as the existence of nature. If reality is limited to knowledge and consciousness

p: ۱۴۹

themselves because we have no conjunction with anything beyond the limits of the mind and its conscious contents, then such knowledge and consciousness will be my .knowledge and my consciousness

I will have no conjunction with the knowledge and consciousness of others, as I will have no conjunction with nature itself. This will impose on me isolation from everything, other than my existence and my mind. Thus, it will not be appropriate for me to accept the existence of other human beings, since they are nothing but the .conceptions of my mind and subjective thoughts

Therefore, this inquiry leads to an incredible individualistic idealism. Is it then possible for Berkeley to be driven to adopt an extreme form of his argument and draw from it this kind of idealism? Had he tried something like this, he would have contradicted .himself before contradicting others

If we are wrong], then with whom did he converse, for whom did he write and] compose, and for whose sake did he lecture and teach? Is this not a firm assertion by Berkeley of the objective reality of other individuals? Thus, it becomes clear that Berkeley himself shares with us the non-acceptance of the argument that he had .adopted, and the acceptance, though unconsciously, of its falsehood

Now, it remains for us to clarify the secret behind the fallacy in this proof, in order to understand why people, including Berkeley himself, cannot attain actual conviction concerning it. In this regard, we must remember what we learned in

p: ۱۵۰

the first part of (p. ۱۲۵) the investigation, 'the primary source of knowledge' - namely, that human knowledge is divided into two main divisions: assent and conception. We must also know the basic quality that distinguishes assent from conception. This quality is what makes knowledge of the assent type a link between us and the .external world

To put this more clearly, conception is nothing but the presence of the form of one of the essences in our specific intellective faculties. The form may be present in our senses. This sort of presence constitutes the sense perception of this form. Again, the form may be present in our imaginative faculty. By means of this presence, .imagination occurs

Further, the form may be present in the mind in its general abstract nature. This kind of presence is called 'intellection'. Thus, sense perception, imagination and intellection are various kinds of conception, and different ways in which the forms of things are present in the human intellective faculties. We conceive the apple on the tree by perceiving it through vision. Our sense perception of it means that its form is present .in our senses

Later, we retain this form in our mind after we depart from the tree. This latter type of presence is imagination. After this, we can eliminate from this form the qualities that distinguish it, from other apples, retaining only its general idea -that is, the universal

.idea of apple. This universal form is intellection

These are the three stages of conception that

human, knowledge crosses. Every one of these stages is just the presence of a form in some of our intellective faculties. Therefore, conception, on the whole, is no more than the presence in our intellective faculties of the form of a certain thing, be that a clear and evident conception, such as sense perception, or dull and faint, such as .imagining and intellecting

Because of this, conception cannot pave the way for us to reach beyond the form that we conceive in our intellective faculties, nor does it ensure the movement from the subjective realm to the objective realm. The reason for this is that the presence of the form of an essence in our intellective faculty is one thing, while the objective and independent presence of that essence in the outside is something else. Due to this, sense perception may make us conceive numerous things that we do not believe to (have any independent objective reality. (p. ۱۲۶

For example, we conceive a stick immersed in water as broken; yet we know that that stick is not actually broken in water. But we perceive it as such due to the refraction of the light rays in water. Also, we perceive the warm water as very hot, if we immerse our hands in it when they are very cold, even though we are convinced that the heat .that we perceive is not objectively real

Regarding assent – that is, the other type of human knowledge – it is the proper point of

our departure from conception to objectivity. Let us, therefore, notice how this is .accomplished

Knowledge of the assent type is nothing but a judgement by the soul that there is a

certain reality beyond conception. This is exemplified in our saying, 'A straight line is the shortest distance between two points'. This judgement means that we assert that there is a reality beyond our conception of straight lines, points and distances. That is .why it is completely different from the various kinds of pure conception

First, this judgement is not a form of a specific essence that we can perceive and conceive. Rather, it is a psychological act that links forms. Because of this, it is impossible that it arises in the mind by way of the senses. Rather, it is one of the .internal acts of the knowing soul

Second, this judgement has a subjective property not present in any kind of division of conception. This is the property of revealing a reality beyond the limits of knowledge. For this reason, it is possible that you can conceive or be aware of a thing without, at .the same time, believing that it has a reality beyond knowledge and consciousness

However, it is not possible that you have knowledge of the assent type - namely, that you believe that a straight line is the shortest distance between two points, while at the same time doubting the existence of the objective reality of which your (knowledge and consciousness speak. (p. ۱۲۷

This makes it clear

p: ۱۵۳

that knowledge of the assent type is the only thing capable of refuting Berkeley's argument which states that we do not have direct conjunction with reality, but that .instead we have conjunction with our ideas

Thus, there is no existence for anything except for our own ideas. However, even though the soul has no direct conjunction with anything except with its knowledge, nevertheless, there is a kind of knowledge which by nature has essential disclosure (kashfan dhatiyyan) of a thing that lies outside knowledge. This is the judgement - that is, knowledge of the assent type. Berkeley's argument is based on his confusion between conception and assent, and on his ignorance of the basic differences

.between the two

In light of this, it is evident that the empirical doctrine and the empirical theory lead to the idealistic tendency. Both are necessitated to accept the argument offered by Berkeley. This is because, in accordance with these two principles, the human soul does not at all possess either necessary or natural knowledge. Rather, all its knowledge arises from sense perception, and its various kinds of cognition are based .on this kind of perception – sense perception being but a form of conception

Thus, regardless of the multiplicity and variety of sense perception, it does not extend beyond its conceptual limits, as it is impossible for human beings to use it to move one .step in the direction of objectivity

The third proof is that if human knowledge and cognition are characterized by essential disclosure

p: ۱۵۴

of the realm that lies beyond their limits, then all knowledge and cognition must be true. This is because by nature and essence, it is revelatory; and a thing cannot be free from its essential attributes. This is so, in spite of the fact that all human thinkers admit that much of the information and many of the judgements that people have are .false and do not disclose anything about reality

Scholars may agree to accept a certain theory, yet later, this theory is shown to be clearly false. How can this be understood in light of the claims made by realistic ?philosophy – namely, that knowledge enjoys essential disclosure

Is there any way out for this philosophy other than to concede that knowledge does not enjoy such a quality? (p. ۱۲۸) But if it concedes this, idealism becomes unavoidable; for then we would be unable to reach objective reality by means of our ideas, as long .as we have admitted that they do not enjoy essential disclosure of that reality

In order for us to respond to this proof, we must know what is meant by the essential disclosure of knowledge. Essential disclosure means that knowledge shows us the

object to which it is related as fixed in a reality external to the limits of our knowledge .and consciousness

Our knowledge that the sun rises, and that the triangle is other than the square snakes us see the sunrise and the triangle's difference from the square as fixed in a

p: ۱۵۵

reality independent of us. Hence,-this knowledge plays the role of a mirror, and its .reflection of this independent reality to us is its essential disclosure

However, such a reflection does not mean that the sunrise truly exists outside, and that the triangle's difference from the square is fixed in reality. That is, the thing's fixedness in reality is other than its being also reflected. From this we know that the essential disclosure of knowledge is not detached from knowledge, even when there .is error and ambiguity

The ancients' knowledge that the sun turns around the earth had the same degree of essential disclosure that our knowledge that the earth turns around the sun has. This means that they saw the sun's turning around the earth as something fixed in reality and independent of them. Thus, the objective existence of such turning was seen by (them; that is, they believed it, even though it was not fixed in reality.(۱

Therefore, by knowledge of the assent type, human beings naturally move from conception to objectivity (p. ۱۲۹) due to the essential disclosure of this knowledge. Whether knowledge is actually true or false, it is in either case knowledge and .disclosure

The fourth proof is that if knowledge of the assent type may be erroneous, and if its essential disclosure does not protect it from being so, then why is it not permissible that all our knowledge of the assent type is erroneous? Further, how can we rely on ,the essential disclosure of knowledge

p: ۱۵۶

In the technical philosophical sense, the close tie between that which discloses - ١ (knowledge) and that which is disclosed by accident (the thing which is external to the sphere of knowledge) is not fixed between the existence of the former and the existence of the latter so that one cannot detach from the other. Rather, it is between the essential disclosure of knowledge and the accidental disclosedness of the thing that lies outside the limits of knowledge. It is clear that the two necessarily .accompany each other and, therefore, cannot detach from each other

as long as such disclosure is a necessary attribute of knowledge, both in its false and ?true matters alike

This attempt differs in purpose from the previous attempt; for in the latter, idealism seeks to consider human knowledge as a subjective matter that does not pave the way to objective reality. But we have thwarted that attempt by showing the essential .disclosure that distinguishes knowledge of the assent type from pure conception

The present attempt, on the other hand, seeks the total elimination of knowledge of the assent type from human thought. As long as such knowledge may be erroneous, or as long as its essential disclosure does not mean its constant truth, then why do we not doubt it and dispense with it altogether? If we do so, we will have nothing to .secure the existence of the objective world

Naturally, if human thought does not possess a number of pieces of knowledge whose truth is necessarily secure, such doubt will be unavoidable and inescapable. Further, it will be impossible for us to know any reality, regardless of its kind, as long as such knowledge does not rely on a necessary security [of truth], and as long as .error is possible in every field

However, what overthrows this doubt is the rational doctrine which we had studied in the first chapter of the theory of knowledge, the primary source of knowledge. This doctrine asserts that there is necessary knowledge whose truth is secure, or .completely free from error

Rather, error occurs sometimes

in the method of making an inference from this knowledge. On the basis of this, human knowledge divides (as was pointed out (p. ۱۳۰) in the above-mentioned discussion) into knowledge whose necessity is secure, of which the main principle of thought is formed, and secondary knowledge inferred from that principle. It is in this latter type of knowledge that error may occur. Thus, regardless of the degree of our .doubt, we cannot doubt that principle, because its truth is necessarily secure

We would now like to find out whether it is possible for the idealist philosopher, Berkeley, to deny that secure principle and reject the presence of primary necessary knowledge above error and ambiguity. There is no doubt that the answer is in the negative; for he is required to admit the presence of knowledge whose truth is secure, as long as he attempts to demonstrate his idealism by means of the .previously mentioned proofs

A human being cannot demonstrate something, unless he based his demonstration on fundamentals and rules that are to him of secure truth. If we pay attention to :Berkeley's proofs, we find him obliged to admit the following

a. The principle of non-contradiction on which the first proof is based. If contradiction were possible, one could infer from the contradiction of sense perceptions that this .principle is not objective

b. The principle of causality and necessity. If Berkeley does not admit this principle, his proof will be useless. For a human being bases a proof on his opinion, only because

p: ۱۵۸

he is convinced that a proof is a necessary cause of knowing the truth of that opinion. If he does not accept the principle of causality and necessity, the proof may be true, .but still one cannot demonstrate by it the opinion under consideration

If knowledge with secure truth is proved in human thought, then there is no (p. ۱۳۱) doubt that our knowledge of the objective world which is independent of us is a part

of this knowledge. The mind finds itself required to accept the existence of the external world as a whole, and to reject all doubt concerning it, regardless of the difference between the mind's awareness and actuality, or between the mind's .thought and reality

Doubt concerning the existence of the independent world will be considered a kind of insanity. We conclude from our discussions of philosophical idealism that realism relies on two principles: the first is the acceptance of the essential disclosure of knowledge of the assent type, and the second is the acceptance of a basic principle of human knowledge whose truth is necessarily secure. We have already found that Berkeley is required to admit each of these two principles. Were it not for the essential disclosure of knowledge of the assent type, he would not have known other individuals, nor would he have fashioned his life on the basis of their existence. Also, were it not for knowledge whose truth is secure in the human thought, he would not have been able to demonstrate

p: ۱۵۹

.his idealistic claims

II. Physical Idealism

Prior to the last century, physics used to explain nature in a materialistic, realistic fashion as governed by the general laws of mechanics. To the physicists, nature is .real, in the sense that it exists independently of the mind and consciousness

It is also material because, according to their scientific analysis, nature is reduced to small, solid particles not receptive to change or division - such particles being the individual substances that were spoken of in Greek philosophy by Democritus.(۱)

These particles or primordial masses of nature are in constant motion. Matter is the sum of those particles, and the natural phenomena in it are the result of the spatial .transposition and motion of those masses

Since this motion requires scientific explanation, physics explained it mechanically, as

it explained the motion of the pendulum of a clock or sound waves. (p. ۱۳۲) It also assumed that those masses involved forces and specific relations among them in order to complete the mechanical explanation of the natural phenomena. These .forces and relations must, in turn, also be subject to the mechanical explanation

Thus, the presumptive notion of air developed in physics, to which a number of functions were ascribed, such as the spreading of light that air was assumed to carry when moving from some masses to some others, as it carries heat, electricity and similar powers of nature. This discussion can be summed up in [the statement] that .nature is a material, objective reality governed by a complete mechanical system

But this

p: ۱۶۰

Democritus, Greek philosopher c.۴۶۰-c.۳۶۲ B.C.). His philosophy is materialistic and - ۱ atomistic. Atoms are the ultimate elements of all substance. They are indivisible and imperceptible. But although atoms are solid, they are separated by void or empty space. Therefore, the ultimate principles of reality are atoms and the void. Atoms differ among themselves quantitatively. Their qualitative differences are results of their quantitative differences. The atoms of fire and those of the soul are different from other atoms in being round and small. The more our souls lose of these aroma, the weaker is our consciousness. Death is the complete absence of such atoms in us. .Personal immortality is impossible

physical notion was not able to remain steadfast in the face of modern discoveries that imposed on the scientists a total conversion of their theories about nature. Further, such discoveries proved to the scientists that the scientific mind is still at its beginning. The discovery of the electrons was one of the most important discoveries. It proved that the atom has a composite structure and that its radiation can be .decomposed

While the atom was the primary material unit of which nature is composed, it proved to be composite in turn. But this is not the whole story. It also became possible that

.the atom evaporates as electricity

Moreover, while motion was restricted to the sphere of mechanical motion - this being consistent with the mechanical explanation of nature - other kinds of motion were discovered. Again, while the common view asserted that the material mass (this is the mathematical expression for the material substance) endures and cannot change, scientific evidence showed that it is not stable but relative, and that in the real sense, it does not express anything other than a latent power. That is why the bodily .mass fluctuates in accordance with its motion

Thus, it became dear to physicists that materialism had died out, and that the materialistic view of the world became inconsistent with science and the empirical (evidence. (p. ۱۸۳

Due to this, the scientists were able to form a substantial notion of the world that is more profound than the materialistic notion. Materialism is just an aspect

p: ۱۶۱

of this new notion. Indeed, some physicists went further than this to claim that the world can be attributed to pure motion. In this, they attempted to dispense with any .substantial reality in addition to the world

(In the words of Ostwald:(۱

The stick that strikes Scaban? does not rise on the basis of the existence of the external world. This stick does not exist. The only thing that exists [of it] is its power of (motion.(۲

Also, Karl Pearson(۳) makes the following statement: 'Matter is the nonmaterial in (motion.'(۴

In the midst of these new discoveries that shook the material edifice and showed that matter is a general human illusion about the world, and not a scientific notion that corresponds to the world, the idealistic tendency in physics arose and attracted many

.physicists

Thus, they said, because every day science offers a new evidence against the objective value of human knowledge and the material aspect of the world, atoms or the primary structures of matter become - after having disappeared in light of science nothing but convenient ways for expressing thought, and metaphors and signs that do not involve any objective reality. We are told by Eddington:(۵)

There is nothing in the whole system of laws concerning natural science that cannot be inferred with clarity from the consideration of, and the reflection on the absolute .comprehensive theory of knowledge

The mind, which does not know our existence, yet (p. ۱۳۴) knows the order of thought by means of which it explains

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۱- Fredric Wilhelm Ostwald, Russian-German physical chemist (۱۸۵۳-۱۹۳۲). His work on catalysts won him the Nobel Prize for chemistry in ۱۹۰۹. Ostwald was one of the founders of the first journal of physical chemistry, and one of the founder of modem .physical chemistry. He also started a journal in the philosophy of science

۲- The author does not give any reference for this passage and we have not been .able to locate it

۳- Karl Pearson, British scientist and philosopher of science (۱۸۵۷-۱۹۳۶). Science, according to him, is descriptive, and its models are intended to facilitate the correlation of data. His main philosophical works are: The Ethic of Free Thought and .The Grammar of Science

۴- Again, the author does not give any reference for this passage, and we have not .been able to locate it

۵- Arthur Stanley Eddington, British astronomer and physicist (۱۸۸۲-۱۹۴۴). Eddington showed that the larger the mass of a star, the greater the internal pressure in that star, and the greater the temperature and radiation pressure; hence, the more luminous is that star. This is known as the 'mass luminosity law'. His principal work is

.The Expanding Universe

its empirical experience, is capable of attaining the whole knowledge of natural science which is acquired by way of sense experience. Finally, I say that what I know about the universe is truly and precisely the exact, the very thing which we add to the universe to make it intelligible.(١)

Later, Eddington expressed his hope that

What was concealed in the nucleus of the atom will become known in the very near future, in spite of the presumptions that our minds entertain, namely that this was concealed prior to our time.(٢)

Actually, the idealistic tendency of these physicists was the result of an error in philosophical thinking, and not the result of a physical proof in the scientific field. The reason is that the primary issue in philosophy, the response to which divided philosophers into idealists and realists, appeared to them as fallacious.

This primary issue is whether the world has an objective reality independent of our minds and consciousness. These physicists thought that this issue is subject to [one of the] following two responses only. Either the world is attributed to the mind and consciousness and, therefore, has no objective existence; or it is a material reality that exists outside the mind and consciousness.

If we discard the second response from the scientific proofs and experiments that showed that materialism is nothing but a veil covering the reality of the world, we are then required to adopt the first response and accept the pure idealistic notion of the world. However, the

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١- No reference is given for this passage.

٢- No reference is indicated here either.

truth is that the two responses were not well stated above. The reason is (p. ١٣۵) that

advancing opposition along idealistic lines does not require us to accept the necessity .of the material aspect of objective reality

This is because realism, which is opposite idealism, does not mean more than the admission of an objective reality independent of the mind and consciousness. Whether this independent objective reality is matter, power, motion or electric waves is another question that realism, which accepts an objective world, must answer in light of science and the experimental discoveries. When we draw a complete distinction between the two issues, we can then attribute the abovementioned .idealistic tendency to the error on which it rests

We have already learned that the first question is this: 'Is the world a reality independent of the human mind?' The two responses to this question are given by idealism and realism. Idealism answers negatively, while realism answers affirmatively. Both answers must be based on purely philosophical grounds. Science .and sense experience have no say in this matter

The other question is the following: 'What is the independent objective reality; and are the qualities or properties of matter primary concomitants of it?'This question leans toward realism only, for there is no room for it on the basis of the idealistic .notion

Some realists answer it by offering a materialistic notion of the independent objective reality. Others offer different notions. The view of science determines some of these responses. Scientific experiments and discoveries form the

p: ۱۶۴

realists' scientific notion of the objective world. Thus, if science discards the materialistic notion of the world, this will not mean that science rejects realism and .has become idealistic

This is because scientific discoveries have not proved the non-existence of (p. ۱۳۶) an independent objective reality. Rather, they have shown that the material aspect is not

a necessary element of it. Whether the world is attributed to potency, motion or anything else other than matter is harmless to realism and cannot prove idealism, as long as the world has an objective reality that exists independently of the mind and .consciousness

Thus, if in light of science, matter is transformed into electricity, mass into energy, energy into mass, and if nature expresses a motion free from matter - if all this comes true - it will not change our position at all concerning the first question. In any case, we believe that reality is not just a product of consciousness, but a product of the .independent reality

These scientific theories can make an impact if we have finished answering the first question and taken up the second question, in order to know the nature of the world. From this we learn that the discoveries of modern science do not refute realism at all. Instead, they refute materialism which claims to be the required description of that .[objective] reality in general

It is strange to find some materialists attempting to retain for materialism the same position that it had enjoyed, and to say that

p: ۱۶۵

the scientific and empirical evidence does not demonstrate the non-existence of the material aspect of the world. Rather, it is a cause of strengthening our understanding .of matter and its qualities

:Let us quote from Lenin

The disappearance of matter determines that the degree of the knowledge of matter that we have reached also disappears, and that our awareness becomes more profound. Thus, some qualities of matter, such as its impenetrability, rest and mass, .had appeared to us before as absolute, fixed and primary, but are now disappearing

They have become known as relative and necessary concomitants of some states of matter only. This is because the only property (p. ۱۳۷) of matter, whose admission is

determined by philosophical materialism, is the state of matter as an objective reality existing outside our awareness.(1)

The principles of the materialistic notion of the world cannot be shaken by any change in the scientific notion of the qualities of matter. This is not because what is philosophically known about matter has no relation to what is alleged to be scientifically known; but because it is impossible for matter to lose this quality of existing as an objective actual reality which is one of the basic qualities of matter.'(2)

By this, Lenin intended to falsify physical idealism and to strengthen his materialistic notion. However, it is clear from his words that he is ignoring every realistic philosophy, with the exception of the realistic philosophy that rests on material grounds. In order to resolve the contradiction between

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1- Ma Hiya al-Mddda, pp. ۲۰-۲۱.

2- Ibid., p. ۲۳.

the materialistic notion and the truths of science and physics, he offered a strange explanation of the notion of matter.

The explanation he gave was extensive and comprehensive enough to cover the objectivity and independence of the reality of matter. By means of this, he attempted to offer materialism instead of idealism as a unique philosophical solution for the issue of the existence of the world. It is clear that if matter is an exact expression of the independent objective reality, and if its only necessary quality is its existence and independence of our awareness, then theological metaphysics must be precisely a materialistic philosophy according to this new notion of matter.

And thus, opposition between metaphysics and the materialistic philosophy and its notion of the world will be completely eliminated. (p. ۱۳۸) The theological philosopher who accepts metaphysics says exactly the same thing about the world [as does the materialist]. The world, to him, is an objective reality independent of our awareness.

The theological principle that is accepted by metaphysical philosophy is nothing but an .objective reality independent of our awareness

The truth is that it is useless to play with words. The expansion of the materialistic notion to the extent that would enable it to cover its opposite notion, and to be consistent with it does not mean anything other than its departure from its own .philosophical reality, and its inability to respond to the notions that are its opposite

Add to this that dialectical materialism does not permit Lenin to

p: ۱۶۷

admit an absolute reality. For this would be contradictory to the dialectic which asserts the development of all realities in accordance with the contradictions that they involve. Is the basic quality of matter, in the new Leninian sense, an absolute quality that does not develop and does not submit to the law of dialectics and its ?contradictions

If the answer is in the affirmative, then the absolute reality that the dialectic rejects and that the Marxist dialectical principles do not accept must exist. If, on the other hand, this quality is a dialectical quality inclusive of the contradictions that cause it to develop and change, as do other realities in the world, this would mean that materialism also suffers from contradiction. Due to this, materialism had to change, to .transform and to free itself from the basic quality of matter

The conclusion that we can draw is that the idealistic tendency of the physicists was the result of failing to distinguish between the two philosophical issues discussed .earlier, and not a direct product of scientific evidence

In spite of this, we must point out another factor that played an important role in shaking the scientists' certitude about objective reality. This was the collapse of the (scientific axioms in the modern scientific field. (p. ۱۳۹

Thus, while such axioms had been considered absolute and indubitable truths, science succeeded in falsifying them and proving their erroneousness. With this, the atoms of

John Dalton(۱) quickly melted away, and the law of the imperishability of matter

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۱ - John Dalton, British meteorologist and chemist (۱۷۶۶-۱۸۴۴). His experiments led to the establishment of what came to be called 'Dalton's law of partial pressures'. This law asserts that a component of a mixture of gases exerts the same pressure that it exerts if it occupies by itself the whole volume of the mixture at the same temperature. Also, like Democritus twenty-one centuries earlier, Dalton asserts on the basis of experimentation that all elements are composed of small indivisible atoms and that all the substances around w are composed of combinations of such stoma. Therefore, changing the combination of atoms in a substance given to a different substance. His principal writings are: Meteorological Observations and Essays and A New System of Chemical Philosophy.

was shaken. Experiments showed that matter is an illusion that people held for thousands of years.

As a reaction to this, doubt reappeared and took hold of the thoughts of a number of scientists. Thus, if the scientific axioms of yesterday are the errors of today, why should we not be doubtful about every reality, regardless of its clarity to us? Further, why should we assume the basic issue - that is, the issue of the existence of objective reality, to be above skepticism or doubt?

Hence, the idealistic tendency or agnosticism arose, not because science proved the correctness and soundness of this tendency, but because the scientists' conviction concerning science was shaken, and their faith in the absolute truth of its axioms collapsed.

However, this factor was only a psychological motive or a psychological crisis that inspired the inclination toward idealism. But this crisis is eliminated by little observation when the issue is studied philosophically. This is because the acceptance of the existence of the objective reality of the world is not the result of empirical and scientific proofs.

We learned earlier that experiments cannot produce such an acceptance and move human beings from conception to objectivity. Rather, it is a natural and necessary acceptance in human nature. For this reason, it is general. Everyone shares in it, including the idealists who rebel against it verbally. They, too, have the very, same .conviction, as their practical lives indicate

All the axioms whose falsehood became evident centered on the structure of the objective world, and

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the determination of its primary reality and elements. It is clear that axioms of this sort are only confirmed by scientific experiments. Thus, their collapse and evident falsehood – whether due to the incompleteness or imprecision of the experiments on which these axioms rest, or to the unsoundness of the rational inference of the theory from the experiment – does not in any way mean that the necessary rational axioms (may be false. (p. ۱۴۰

III. Physiological Idealism

This is another sort of idealism adopted by some physiologists. According to their claims, it rests on the physiological truths that science discovers. This idealistic .tendency proceeds from the following indisputable point

The determination of the subjective form of the human sense perception depends on the composition of our senses and on the organic system in general. Thus, the nature of sense perception which comes to us from the external world does not by itself .determine the form of the thing in our sense perception

Rather, this form is at the mercy of the nervous system more than anything else. On the basis of this, they claimed that the senses do not give us information about the external world. Rather, they inform us about our private organic system. This does not mean that the senses have no relation to external things. Rather, external things .are the primary causes that produce the acts of sense perception

However, it is the nature of the private organic system that crystallizes the acts of sense perception in the manner in which sense perception

expresses itself. Due to this, sense perception may be considered symbolic, and not an exact form. This is because a form is required to have some similarity to the thing that it represents. A symbol, on the other hand, need not have any similarity to the thing with which it is concerned.

This idealistic tendency is one of the unavoidable complications of the materialistic notion of knowledge which we completely reject. If knowledge were either nothing but a pure physiological act, or a specific material interaction between the nervous system and the external objective things, the quality of this physiological act must be linked either to the nature of the nervous system [alone], or to both the nature of this system and the nature of the objective things.

Even if this leads to clear idealism and to the negation of the reality of the objective world, nevertheless, as long as we retain for external things the aspect of causing the processes of the nervous system, (p. ۱۴۱) it is permissible to doubt the degree of correspondence between sense perception and objective reality, and to be skeptical as to whether knowledge is a mere specific reaction that indicates its cause symbolically, and without similarity [to it] in reality and content. We will soon return to this physiological idealistic notion.

۵. The Defenders of Modern Skepticism

In fact, modern skepticism can be attributed to the old doctrine of skepticism that was upheld by the Greek school of skepticism headed by Pyrrho, who claimed that human beings are incapable of passing any

judgement about things. Modern skepticism developed under circumstances similar to those that surrounded this old school and helped its growth. Greek skepticism

arose as a compromise for the conflict that had reached its most intense moments .between sophistry and philosophy

Sophistry was born a few centuries before philosophy. It rebelled against all truths and denied scientific and empirical propositions together. Philosophers confronted sophistry, pointing out its contradictions, and showing its collapse at the hands of .criticism, until the wave of denial faded away

At that point, the notion of doubt asserting absolute agnosticism came about. It attempted to justify this agnosticism by showing the contradictions of the senses and .the conflicting ideas that strip it of the quality of scientific confidence

Thus, it was a light form of sophistry. The same is true of modern skepticism. It attempted to advocate agnosticism as a solution for the contradiction between idealism and realism - if it is appropriate to consider surrendering to doubt as a .solution for this contradiction. Due to this, it was a lighter form of idealism

Modern skepticism did not rely on showing only the contradictions of sense perception and knowledge, but also on the analysis of knowledge which leads to doubt, according to the claims of its proponents. David Hume, who advocated the philosophy of skepticism as a result of Berkeley's philosophy, (p. ۱۴۲) believed that certainty about the objective value of human knowledge is an inaccessible matter. .The instrument of human knowledge is the mind or cogitation

It

p: ۱۷۲

is impossible to have anything in the mind but knowledge. It is also impossible to conceive or to form the idea of a thing, if that idea is different from concepts and reactions. Let us direct our attention to the outside as much as we please, and let our imagination survey the skies or the furthest points of the universe, still we will never .take one step beyond ourselves

Because of this, we cannot answer the basic issue in philosophy, concerning which the

idealists and the realists fight. Idealism claims that reality is in consciousness and knowledge; while realism asserts that reality exists in an objective and independent manner. Skepticism, on the other hand, refuses to respond to this issue, because [according to it], it is impossible to give an answer to such an issue. Therefore, let this .issue be suspended forever

The fact is that David Hume did not add anything to Berkeley's proofs, even though he has strengthened doubt about realities and disregard for them. His skepticism was not limited to external matter. Rather, he struck down the two realities that Berkeley's philosophy retained - namely, the soul and God. This was in keeping with the extreme form of the empirical principle. For this purpose, he adopted the same Berkeleian .style and method

As the material substance was not, in Berkeley's view, anything but an assembly of phenomena composed artificially in the mind, so also is the soul nothing but an assembly of internal phenomena and their relations. It is impossible

p: ۱۷۳

to prove 'the I' (the self) by consciousness, because when I penetrate to the heart of what I call 'the ۱', I come across a particular phenomenon. Thus, if all knowledge .'disappears, there will remain nothing that I can call 'the I

As for the idea of God, it rests on the principle of causality. However, it is not possible to admit the truth of this principle, according to Hume's claim. The reason is that the senses do not reveal to us a necessity between phenomena and events. Rather, the (idea of causality is attributed to mere habit or to a form of association of ideas. (p. ۱۴۳

Thus, Hume reached the ultimate points of the empirical theory and the empirical doctrine to which this theory and this doctrine naturally lead. Instead of proving by this method [the necessity of] refuting the empirical or experimental principle in the .mind, he was driven after this principle, until it led him to the unavoidable end

We do not wish to discuss David Hume once again, inasmuch as his arguments are a

repetition of Berkeley's proofs and views. Rather, we will take up one point only, namely habit, to which Hume attributed the principle of causality and many relations .of things in the mind

Let us therefore, ask: 'What is habit?' If it is nothing but a necessity existing between the idea of the cause and that of the effect, then it is another expression of the principle of causality. If, on the other hand, it is

p: ۱۷۴

something else, then it is not different from causality in being an invisible idea to .which we have no corresponding sense perception or reaction

But Hume must reject this [view], as he rejects all the truths that are inaccessible to the senses. In criticizing the empirical doctrine earlier, a response was given to this unsuccessful explanation of causality attempted by Hume. Therefore, let that .[response] be attended to

The Relativists .۶

point

Relativism is considered one of the doctrines that assert the existence of reality and the possibility of human knowledge. However, this knowledge or reality, which the human mind may attain, is a relative knowledge and a relative reality, in the sense that it is not a reality free from subjective attachments, or an absolute reality. Rather, it is a mixture of the objective aspect of the thing and the subjective aspect of the knowing mind. Therefore, objective reality in thought is inseparable from the .subjective aspect, and is not free from some foreign addition

There are two main tendencies of relativism that differ in their idea about relativism and its limits in the human sciences. One of these is the tendency of relativism in the philosophy of Immanuel Kant. The other is the tendency of subjective relativism of a number of modern materialist philosophers. This latter tendency paved the way for (developmental relativism, which was advocated by dialectical materialism. (p. ۱۴۴

To begin with, you must know that a rational judgement, according to Kant, is of two kinds. First, analytic judgement: this is the judgement that

the mind uses for the purpose of clarification only, as in our statements: 'The body is extended', and 'The triangle is three-sided'.

The source of the judgement here is the analysis of the notion of the subject, i.e. 'body', or 'triangle', the inference of the elements implied in this notion, such as'extension', which is implied in the notion of 'body' and 'three-sided', which is implied in the notion of 'triangle', and then the attribution of these elements to the subject. Analytic judgements do not give us new information about the subject. Their only role is to explain and clarify.

Second, synthetic judgement: this is the judgement whose predicate adds something new to the subject. Examples of this are: 'Bodies are heavy'. 'Heat expands corporeal particles.' 'Two plus two equals four.'

The quality that we impose on the subjects in these propositions is not inferred from them by analysis. Rather, it is additional. Because of this, a new knowledge that was not available before arises. Synthetic judgements are sometimes primary judgements, while at other times they are secondary judgements.

Primary judgements are those that are fixed in the mind prior to sense experience, such as mathematical judgements, as in our saying: 'A straight line is the shortest distance between two points.' The reason for their being so will be pointed out later. Secondary synthetic judgements, on the other hand, are those that are fixed in the mind after sense experience, such as the judgements: 'The sunlight warms the stone,' and 'Every body has a

(weight' (p. ۱۴۵

Kant's theory of knowledge may be summed up in the division of rational knowledge (or judgements into three groups.(۱)

a. Mathematics: All rational knowledge in this group is primary synthetic judgements prior to sense experience because it treats natural subjects in the human soul. Geometry specializes in space. The subject of arithmetic is number. Number is nothing but a repetition of the unit. Repetition means succession and following. And this is time, in the Kantian philosophical sense.

Therefore, the two main poles around which the mathematical principles center are space and time. In Kant's view, space (p. ۱۴۶) and time are two natural forms in people's formal sensibility. In other words, the form of space and that of time are present in the formal sensibility independently of sense experience.

The consequence of this is that all the judgements related to time and space that we attribute to things are derived from our nature. In these judgements, we do not rely on what we acquire from the outside through the senses. That is why all mathematical propositions are derived from the nature of our minds. This means that we create them ourselves, and do not acquire them from the outside, since they focus on time and space that are natural.

Thus, mathematics and the mathematical principles becomes knowable; and mathematical truths become absolutely certain. Therefore, there is no room in the mathematical field for error or contradiction, as long as this field is natural in the soul, and as long

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۱- The reader must know something about the analysis of knowledge in Kant's view, so that he will be clear about Kant's theory of the value and possibility of knowledge. Kant believes that sense experience takes the empirical subjects in a confused manner. Owing to this, different sense perceptions are produced. The flavor that hits

the tongue has no relation to the odor that penetrates the nose, nor to the quick flash of light that affects the retina of the eye, nor again to the sound that strikes the ear. These different sense perceptions unite in two sense intuitions (text: qalabayn mawjudayn fi al-his bil-fitra [two molds existing in the senses by nature]). These are the intuition of time and that of space. This results in the sense perception or sense knowledge of a specific thing. In its matter, this knowledge is derived from sense experience, and in its form, it is natural and attributable to time and space. Sense perception is a raw material presented, in rum, to the mind, so that out of it rational knowledge may be formed. The mind possesses a number of intuitions similar to the intuitions possessed by the senses. Thus, the mind pours this raw material into its intuitions, and shapes is in accordance with those frames. With this, rational knowledge occurs. Thus, sensible things are composed of a matter grasped by the senses and a spacio-temporal form produced by the formal sensibility (al-hasasiyya as-suwariyya), i.e., the sensibility which produces the unified form of the various sense perceptions. Rational things are also composed of a matter which is the phenomena that are woven by the formal sensibility in accordance with the spacio-temporal frame, and a form which is the matrix which produces and unifies those .phenomena by means of formal understanding

as its propositions are produced by us, and are not copied from an objective reality that is independent of us; so that we may doubt the extent of the possibility of .knowing this reality and unraveling its innermost secret

b. Natural science - that is, the human knowledge concerning the objective world that is subject to sense experience: here, Kant begins by dismissing matter from this field, .because the mind does not know anything about nature other than its phenomena

He agrees with Berkeley that matter is not subject to knowledge and sense experience. However, he differs from Berkeley in another respect. He does not consider the above-mentioned point as a proof for the non-existence of matter and a .philosophical justification for its denial, as Berkeley had claimed

If matter is discounted, nothing will be left for the natural sciences other than the

phenomena that are subject to sense experience. Therefore, such phenomena are the subject of these sciences. Because of this, the judgements in these sciences are synthetic and secondary, since they are based on a study of the objective phenomena (of nature that are known by sense experience. (p. ۱۴۷

If we wish to analyze these secondary synthetic judgements from the perspective of the mind, we find them composed in fact of two elements, one of which is empirical and the other rational. The empirical aspect of these rational judgements is the sense perceptions that sense experience acquires from the outside, after the formal sensibility pours these perceptions in the

p: ۱۷۸

.time intuition and the space intuition

As for the rational aspect, it is the natural link that the mind imposes on the objects of sense perceptions, so that a science or a rational knowledge may be formed out of them. Knowledge, therefore, is a mixture of subjectivity and objectivity. It is subjective in its form and objective in its matter. This is because it is the product of the union between the empirical matter, which is derived from the outside, and one of the .forms of the mind which is naturally ready in the mind

We know, for example, that bodily particles expand by heat. If we consider this knowledge with some degree of analysis, we find that the raw material of this knowledge - this being the phenomenon of the expansion of bodily particles and the phenomenon of heat -was given by way of sense experience. Were it not for sense .experience, we would not have known these phenomena

On the other hand, the formal aspect of knowledge, - that is, the causation by one phenomena of another - is not empirical. Rather, it can be attributed to the category of causality which is one of the natural categories of the mind. Had we not possessed this prior form, there would not have been knowledge. Similarly, had we not acquired the matters by means of sense experience, we would not have attained any .knowledge either

Thus, knowledge arises as a result of the mind's adapting the empirical subjects to its specific

p: ۱۷۹

frames and molds, namely, to its natural categories. The mind does not adapt, and its frames and molds do not crystallize in accordance with the known subjects. In this, the mind is similar to a person attempting to put a certain quantity of water in a narrow bottle too small for it. Thus, he resorts to reducing the quantity of water, so that it becomes possible to put it in that bottle, instead of enlarging the bottle to give it .the capacity to hold all the water

Thus, the intellectual revolution made by Kant concerning the issue of the human mind becomes evident, since he made things center on the mind and crystallize in accordance with its specific frames. (p. ۱۴۸) This was contrary to the common view - namely, that it is the mind that centers on things and adapts itself in accordance with .them

In light of this, Kant distinguished between 'the thing in itself and 'the thing in us'. The thing in itself is an external reality without any addition from us. This reality that is free from any subjective addition is unknowable; for knowledge is subjective and rational in its form. The thing in us, on the other hand, is a mixture composed of an empirical .subject plus the prior natural form which unites with it in the mind

That is why relativity is imposed on every truth representing external things in our knowledge, in the sense that our knowledge indicates to us the thing's reality in us, and

p: ۱۸۰

not the thing's reality in itself. In this, the natural sciences differ from the mathematical sciences. Since the subject of the mathematical sciences is present in the soul naturally, these sciences do not involve any duality of the thing in itself and .the thing in us

The natural sciences, on the other hand, are the opposite of this. They treat the external phenomena that are subject to sense experience. These phenomena exist independently of us; and we know them by our natural molds. No wonder then that .the thing in itself is distinct from the thing in us

c. Metaphysics: Kant believes that it is impossible to attain knowledge in metaphysics by means of the theoretical mind, and that any attempt to establish metaphysical .knowledge on philosophical grounds is an unsuccessful and valueless attempt

The reason for this is that there cannot be any primary or secondary synthetic judgements in the propositions of metaphysics. Since the primary synthetic judgements are independent of sense experience, they cannot be applicable to anything other than the subjects that are created in the soul by nature, and are ready .in the mind without sense experience

Examples of this are time and space, the two subjects of the mathematical sciences. (p. ۱۴۹) As for the things dealt with in metaphysics - namely, God, the soul and the world - they are not of this sort. Metaphysics does not study mental entities. Rather, it .attempts to investigate self-subsisting objective things

Secondary synthetic judgements, on the other hand, treat empirical

p: ۱۸۱

subjects such as the subjects of the natural sciences that are a part of the empirical field. That is why these judgements are secondary: they require sense experience. It .is clear that the subjects of metaphysics are not empirical

Therefore, it is not possible to form secondary synthetic judgements in metaphysics. Due to this, there is no room in metaphysics for anything other than analytic judgements - that is, elaborations and explanations of the metaphysical notions. But .these judgements do not constitute real knowledge at all, as we learned earlier

The conclusion that Kant draws from this is the following. First, judgements of the mathematical sciences are primary synthetic, and with absolute value. Second,

judgements that are based on sense experience in the natural sciences are secondary synthetic. The truth in them cannot be more than relative. Third, the subjects of metaphysics cannot involve sound rational knowledge, neither on the basis of primary synthetic judgements, nor on the basis of secondary synthetic .judgements

The main points in Kant's theory are these. Primary rational knowledge is not a self-subsisting science independent of sense experience. Rather, it is relations that aid in organizing and connecting things. Its only role, therefore, ١٥٠) is one of making us know the empirical things, in accordance with its specific frames. The natural consequence of this is the discarding of metaphysics, since this primary knowledge is not a science but relations. In order for it to be a science, it would require a subject that the mind produces or knows

p: ١٨٢

.by sense experience

But the subjects of metaphysics are neither produced by the mind, nor known by sense experience. Another consequence of this is that truth in the natural sciences always becomes relative, since those relations are a part of the innermost structure of our knowledge of the external phenomena, and are subjective relations. Thus, the .thing in itself differs from the thing in us

This Kantian theory involves two basic errors. The first is that it considers the mathematical sciences productive of the mathematical truths and their principles. By this consideration, Kant raised the mathematical principles and their truths above the possibility of error and contradiction, since they are created in the soul and derived from it, and not from the outside so that one may suspect they are erroneous or .contradictory

However, the truth on which every realistic philosophy must be based is that science is neither creative nor productive. Rather, it is revelatory of what lies beyond its specific mental limits. Were it not for this [quality of] essential disclosure, it would not

.be possible at all to respond to the idealistic notion, as was previously done

Thus, our knowledge that two plus two equals four is the knowledge of a specific mathematical truth. But our knowledge of this truth does not mean that we produce or create this truth in ourselves, as idealism attempts to teach. Rather, knowledge in its nature is like a mirror. Thus, as a mirror shows the real existence of the form reflected in it

p: ۱۸۳

.as lying outside its limits; so also does knowledge reveal an independent truth

It is for this reason that two plus two equals four, whether or not there exists a mathematician on the face of the earth; and whether or not a human being knows this truth. (p. ۱۵۱) This means that the mathematical principles and truths have an objective reality. They are operative and applicable laws. The mathematical sciences are nothing but reflections of these principles and truths in the human mind. In this, these principles and truths are very similar to the natural principles and laws in that .they are objective realities reflected in the mind

Thus, we face the question concerning their mental reflection, and the degree of its soundness and precision, as we face the same question in the rest of the sciences. There is only one answer to this question. It is the one offered by the rational doctrine: it states that since those reflections of the mathematical principles in the human mind are natural and necessary, their truth is essentially certain. Thus, the mathematical truths are knowable, not because we create them, but because we reflect them in .necessary natural sciences

The second is that Kant considers the laws that have their foundation in the human mind as laws of the mind, and not scientific reflections of the objective laws that govern and regulate the world as a whole. They are nothing but mere relations present in the mind naturally, and used by the mind

p: ۱۸۴

.to organize its empirical knowledge

It was previously [mentioned] that this error resulted in the assertion of the relativity of the truths known about the world of nature, and the assertion of the impossibility of studying metaphysics rationally, as well as the impossibility of basing it on the natural rational knowledge, since this knowledge is nothing but relations by means of which the mind organizes its empirical knowledge. As for the subjects of metaphysics, we .have no knowledge concerning them so that one can organize it by such relations

Adopting this critical doctrine unavoidably leads to idealism; for if the primary knowledge in the mind is nothing but dependent relations awaiting a subject in which ?to appear, then how could we move from conception to objectivity

Further, how could we prove the objective reality of our various sense perceptions, (p. ۱۵۲) - that is, the natural phenomena whose objectivity Kant admits? We do know that the method of demonstrating the objective reality of sense perception is the principle of causality that asserts that every empirical reaction unavoidably results from a .cause which produces that particular reaction

Therefore, if in Kant's view causality is attributed to a relation between the empirical phenomena, then it will be naturally incapable of performing anything in addition to .relating our sense perceptions, as well as the phenomena that appear in them

At this point, it is our right to ask Kant about his philosophical justification for accepting an objective reality of the sensible world, when we

p: ۱۸۵

do not possess a complete natural knowledge, such as the principle of causality by means of which we can demonstrate this reality. Instead, we possess a number of .relations and laws for organizing the mind and knowledge

Due to this, realism must admit that the natural knowledge in the mind is nothing but scientific reflections of independent objective laws. With this, Kant's relativity, which he ascribes to our knowledge of nature, is eliminated. This is because even though all

knowledge in the natural sciences requires some natural knowledge on the basis of which scientific inference is drawn from experimentation; still, such a natural .knowledge is not purely subjective

Rather, it is a natural reflection of an objective law that is independent of the sphere .of consciousness and knowledge

Our knowledge that heat causes the expansion of bodily particles is based on an empirical or experimental knowledge of heat and expansion, as well as on a necessary rational knowledge of the principle of causality. Each of these two pieces of knowledge reflects an objective reality. Our knowledge that heat expands bodily particles results from our knowledge of the two objective realities of these two pieces .of knowledge

What Kant calls by the name 'form' (sura) is not a rational form of pure knowledge. Rather, it is a knowledge characterized by the qualities of science – that is, by .essential disclosure and the reflection of objective reality in this disclosure

If we realize that the mind naturally possesses necessary knowledge of a number of laws

p: ۱۸۶

p. ۱۵۸) and objective realities, then we will be able to base metaphysical propositions) on a philosophical ground by studying them in light of that necessary knowledge. This is because that knowledge is not just pure relations. Rather, it is a primary knowledge .that can produce a new knowledge in the human mind

II. Subjective Relativism

Following Kant, the subjective relativists emerged to assert the character of relativity of all that appears to people as true, according to the role that the mind of every .individual plays in acquiring the truth

According to this new notion, a truth is nothing but what is necessitated by the

circumstances and conditions of knowing. Since such circumstances and conditions differ among the various individuals and cases, therefore the truth in every area is relative to its specific area, according to the circumstances and conditions involved in that area. The truth is not the correspondence of an idea to reality, so that it would be .absolute with respect to all cases and individuals

It is true that this kind of relativism carries the slogan of truth; but this slogan is false. It is clear that this kind of relativism is nothing but one of the doctrines of doubt or .skepticism concerning every objective reality

The subjective relativism under consideration is supported by the idealistic physiological tendency that asserts that sense perception is only symbolic, and that what determines its quality and kind is not the external thing, but the nature of the .nervous system

In fact, the fundamental cause that made

p: ۱۸۷

it possible for subjective relativism to emerge was the materialistic explanation of knowledge, and the consideration of knowledge as involving a material process in which the knowing nervous system interacts (p. ۱۵۴) with the objective thing. This is analogous to digestion, which is accomplished by the process of a specific interaction .between the digestive system and the nutritive elements

As nourishment does not interact [with the digestive system] and is not digested except after it undergoes a number of changes and developments, so also the thing .which we know cannot be known by us except after changing it and interacting with it

This kind of relativism differs from Kant's relativism in two ways. First, it subjugates all truths, without exception, to subjective relativity; in contrast to Kant who considers mathematical principles and knowledge as absolute truths. Thus, for him, 'two plus two equals four' is an absolute truth not susceptible to doubt. But in the view of the subjective relativists, this is a relative truth, in the sense that it is necessitated by

.nothing other than the nature of our knowledge and our specific system

Second, the relative truth, according to the subjective relativists, differs among individuals. Further, it is not necessary that all people share some specific truths, since .every individual has his own role and activity to play

Therefore, it is not possible to judge that what an individual knows is the same as what another individual knows, as long as it is possible that those two individuals disagree on

the methods and nature of knowledge. But for Kant, the formal molds are natural. All human minds participate in them. This is why the relative truths are shared by all people. In our future studies, we will discuss and refute the materialistic explanation .of knowledge on which subjective relativism is based

III. Scientific Skepticism

We saw earlier that the doubt that spread among the natural scientists after their great triumph in the field of physics was not a scientific doubt, nor was it based on a scientific proof. Rather, it was a doubt based on a philosophical error, or on a (psychological difficulty. (p. ۱۵۵

But in other fields, we find scientific theories that unavoidably lead to doubt, and to the affirmation of the denial of human kowledge - this is in spite of the fact that their proponents did not think of reaching such a result. Instead, they continued to accept the value and objectivity of knowledge. Due to this, we called the doubt resulting from such theories 'scientific skepticism', since these theories are scientific, or, at least, appear scientific. The following are among the most important of these theories: (۱) behaviorism, which explains psychology on the basis of physiology; (۲) Freud's(۱) doctrine of psychoanalysis; (۳) historical materialism, which shapes the Marxist views .concerning history

a. Behaviorism

Behaviorism is one of the well-known schools of psychology that expresses a materialistic tendency in this science. The name 'behaviorism' was given to it, because it took the behavior of the living being and his bodily movements, which

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Sigmund Freud, founder of psychoanalysis (١٨٥۶-١٩۴٠). Through a study of the effect -١ of hypnosis on hysteria, he reached his view on psychoanalysis. In ١٩١٠, he founded the International Psychoanalytical Association. His writings are numerous and well known. Among them are the following: The Interpretations of Dream, The Psychopathology of Everyday Life, Introductory Lectures in Psychoanalysis, Humor and Its Relation to the Unconscious, The Ego and the Id, The Problem of Anxiety and .The Future of an Illusion

may be subjugated to scientific observation and experimentation, as the subject of .psychology

It refused to admit the non-empirical subjects, such as the mind and consciousness, which lie beyond scientific observation and experimentation. It also attempted to explain the psychology of a human being and the whole of his psychological and .conscious life without assuming that he has a mind and similar invisible ideas

This is because the psychologist does not find or does not perceive the minds of others scientifically when he carries out his experiments on them. Instead, he .perceives their behavior, their movements and their physiological activities

Therefore, in order for the research to be scientific, all the psychological phenomena must be explained within the sensible framework. This is done by considering a human being as a machine whose phenomena and movements may also be explained in terms of the mechanical method, and in light of the principle of the .causation of the external stimuli which proceed to the machine, thus affecting it

According to behaviorism, when we study the psychological phenomena, we do not find a mind, (p. ١٥۶) a consciousness or knowledge. Rather, we are faced with

physiological material movements and activities produced by internal or external .material causes

Thus, when we say, for example, 'The history teacher thinks of preparing a lecture on the individual ownership of the Romans,' we are in fact expressing material activities and movements in the teacher's nervous system that are produced mechanically by external or internal causes, such as

p: ۱۹۰

the heat of the fireplace in front of which this teacher sits, or the digestive operation .which follows his tatting of lunch

Behaviorism found in the conditioned stimuli, which are based on Pavlov's (۵۰) experiments, great support which made it possible for it to assert the multiplicity of stimuli that a human being receives 'due to the growth and increase of these stimuli .'by way of conditioning

Thus, it became possible to say that the totality of 'the natural and conditioned' stimuli corresponds to the totality of the ideas in a human being's life. 'How did behaviorism benefit from Pavlov's experiments?' 'What are the conditioned stimuli that these experiments uncovered - thus multiplying the number of stimuli, something in the light of which behaviorism explained human ideas?' 'To what extent can Pavlov's '?experiments prove the behavioristic point of view

These issues will be addressed in one of the discussions of this book reserved specifically for the discussion of knowledge (Part ۲, Chapter ۱ of the present work). At the present, however, we are concerned with expounding the behavioristic point of view which subjugates the human intellectual life to a mechanical explanation, and understands the mind and consciousness as physiological activities produced by .various material causes

It is clear that any attempt to postulate a theory of knowledge in light of this sort of behaviorism unavoidably leads to a negative position with respect to the value of

knowledge, and to the inadmission of its objective value. Consequently, any discussion concerning the soundness of

p: ۱۹۱

this or that scientific notion, this or that philosophical doctrine, or this or that social (opinion becomes useless and unjustifiable. (p. ۱۵۷

This is because every notion, regardless of its scientific, philosophical or social character or area, does not express anything except particular situations that occur in .the bodies of the same individuals that have that notion

Thus, on the philosophical level, we cannot ask which one of the two philosophies is true: the materialism of Epicurus(۱) or the theology of Aristotle; nor can we ask on the scientific level which of the following is true: Newton's(۲) idea that asserts that the universe must be explained in terms of gravity, or Einstein's(۳) general relativity; .Marx's economic thought, or Ricardo's,(۴) for example

The same is true of all fields, because in light of behaviorism, this sort of inquiry appears very much like an inquiry about the digestive operations of the pair of .thinkers -namely, which one of the two operations is true

Thus, as it is inappropriate to inquire about which of the two operations is true - the digestive operations of Epicurus, Newton and Marx, or those of Aristotle, Einstein and Ricardo - so also it is inappropriate to inquire about whose doctrines or ideas are true. The reason is that the ideas of these thinkers are, like the different digestive .operations in their stomachs, nothing but bodily functions and organic activities

Thus, whenever it becomes possible for the activity of the stomach to reveal to us through the

p: ۱۹۲

Epicures, Greek philosopher (۳۴۱-۲۷۰ B.C.). He was influenced by Democritus, from -۱ whom he borrowed the atomistic theory. The permanent subject of change is the

atom, which is the smallest observable entity, and which is simple and solid in its nature. The atoms differ only in size and shape. It is the addition or subtraction of atoms that account for the qualitative difference of objects. His main writings are: On .Nature and The Cannon

Isaac Newton, English physicist and natural philosopher (۱۶۴۲-۱۷۲۷). Newton and - ۲ Leibniz are thought to have invented the differential calculus independently. His main .writings are the following: Mathematical Principles of Natural Science and Optics

AIbert Einstein, German, Swiss and American mathematician and atomic physicist - ۳ (۱۸۷۹-۱۹۵۵). He received the Nobel Prize in physics in ۱۹۲۱. It is interesting that as a child, Einstein appeared so slow intellectually that there was some fear he might be retarded. He dropped out of high school. And were it not for his competence ac mathematics, he might not have made it to college, for he was a poor student in most other subjects. Among Einstein's important contributions is the relativity theory, according to which all motion is relative. He also determined the interrelationship between mass and energy to be as follows: E = mc۲ - E being energy, m mass, and c velocity of light. Energy and mass are different aspects of the same reality. Energy is a form of mass, and vice versa. In light of this view, the older theories of the conservation of energy and the conservation of mass could no longer hold. It is this discovery that made it possible to transform huge quantities of mass into energy, and .hence, make the atomic bomb

David Ricardo, British economist (۱۷۷۲-۱۸۲۳). Ricardo is known for an abstract and - ۴ difficult style. He stressed the principle of diminishing returns in connection with the rent of land. His main writings can be found in David Ricardo: Works and .Correspondence (۱۱ vols.) ed. Piero Sruffa with the collaboration of M.H. Dobb

digestive operation the quality of nourishment, and to describe to us the nature of nourishment, it becomes possible for the neurological activity in the brains to reflect some external realities. But as long as it is not permissible for us to ask whether the activity of the stomach is true or false, it is also not permissible for us to ask whether .the intellectual activity is true or false

We also find it clear that the idea, according to the behavioristic school, is linked to its

stimuli, and not to its evidence. Due to this, the behavioristic school lost confidence in all human knowledge, since it is possible for the idea to change and to be followed by .a contradictory idea if the stimuli and external conditions are different

Therefore, it becomes useless for the thinker to discuss his idea and its evidence. Instead, one must investigate the material stimuli of that idea and their removal. If the idea, for example, was produced by the heat of the fireplace that is in the room in which that thinker thinks, and by his digestive operation, then the only way for eliminating this idea is by changing such things as the atmosphere of the room, and stopping the digestive operation. (p. ١٥٨) With this, human knowledge becomes void .and empty of objective value

b. Freud

As for Freud's doctrine of psychoanalysis, it records the same conclusions reached by behaviorism concerning the theory of knowledge. Even though Freud's doctrine does not deny the existence of the

p: ١٩٣

mind, yet it divides the mind in two. One division is the conscious elements: these are a collection of ideas, emotions and desires of which we are aware in ourselves. The other division is the unconscious elements of the mind - namely, our appetites and .instincts - which are concealed behind our consciousness

These are mental forces deeply rooted in ourselves. We cannot control their activities or have any say in their formation and development. All the conscious elements depend on these concealed elements of which we are unaware. The conscious acts of an individual are nothing but a distorted reflection of the appetites and motives that .are hidden in the unconscious

Consciousness, therefore, comes about by way of the unconscious. This enables the proponents of psychoanalysis to say that the unconscious is that which determines .the contents of consciousness, and consequently, rules all human ideas and conduct

With this in mind, our instinctive appetites become the real foundation of what we believe to be true. The reasoning processes, which lead us to the conclusions that are already imposed on us by our appetites and instincts, are nothing but an elevation or a lifting of these instincts to the conscious level which constitutes the upper division of the mind. On the other hand, the unconscious elements or the concealed instincts and .appetites constitute the first level or the foundational lower division

We can easily realize the influence of this analytic doctrine on the theory of knowledge. In light of it, the mind

p: ۱۹۴

is not viewed as an instrument for changing the actual world or for producing events .in reality

Rather, its task is to express the demands of the unconscious, and inevitably to attain the results that are imposed by our appetites and instincts and that lie hidden in our innermost being. As long as the mind is an instrument that serves the purposes of our instincts and expresses them, and not reality or actuality, there will be nothing to .support (p. ۱۵۹) the belief that the mind reflects reality

This is so because it is possible for reality to be in disagreement with our unconscious desires that govern the mind. It would also be impossible to think of giving any assurance about the concordance between our unconscious mental forces and reality. The reason is that such thinking itself is the product of our unconscious desires .and an expression of them, and not of actuality or reality

c. Historical Materialism

Following this, the role of historical materialism emerges, and again reaches the same conclusion to which behaviorism and psychoanalysis led. This is in spite of the fact that all the proponents of historical materialism reject skepticism and accept .philosophically the value of knowledge and its capacity for revealing reality

Historical materialism expresses the complete Marxist notion of history, society and

the laws of the composition and development of society. That is why it treats general human ideas and knowledge as a part of the composition of human society. Thus, it gives its opinion regarding the manner

p: ۱۹۵

.in which the various political and social conditions arise

The basic idea of historical materialism is that the economic condition, which is determined by the means of production, is the real basis of society in all its aspects. Thus, all social phenomena are the product of the economic condition, and develop in accordance with its development. In Britain, for example, when the economic condition was transformed from feudalism to capitalism and the windmill was replaced by the steam mill, all the social conditions there changed and adapted to the .new economic condition

After historical materialism upheld this view, it became natural for it to link human knowledge in general to the economic condition also, since knowledge is a part of the .social structure which, as a whole, depends on the economic factor

That is why we find it asserting that human knowledge is not the product of the functional activity of the brain (p. ۱۶۰) only. Rather, its primary source lies in the economic condition. Human thought is a mental reflection of economic conditions, as we' as of relations produced by such conditions. [Thus] human thought grows and .develops in accordance with those conditions and relations

It is easy to see here that in historical materialism, the economic forces occupy the same position as that of the unconscious elements of instincts and appetites in Freud's theory. Thus, while, according to Freud, thought is an inevitable expression of the demands of hidden instincts and appetites, in the view of historical materialism, thought becomes an

p: ۱۹۶

inevitable expression of the demands of the economic forces and the general

.economic condition

But in both, the result is the same. It is the lack of confidence in knowledge, and the loss of confidence in the value of knowledge, since knowledge becomes an instrument for carrying out the demands of a firm force that controls thought – this is the force of the unconscious, or the force of the economic condition. We do not know .whether the economic condition provides our minds with reality or with its opposite

Further, even if we did know this, this knowledge would be, in turn, a new expression of the demands of the economic condition. But the correspondence of such .knowledge to actuality is something of which we are not yet certain

From this we learn that the Marxist doctrine of history imposed on Marxist skepticism. However, Marxism refused to yield to skepticism. Instead, it declared in its philosophy .that it accepts knowledge and its value

Later, we will touch upon the Marxist philosophical theory of knowledge. But our concern at the present is to point out that the inevitable results of the Marxist doctrine of history – that is, historical materialism – are in contradiction with the Marxist philosophical theory of knowledge. The reason is that the inevitable link between thought and the economic factor in the historical doctrine of Marxism eliminates confidence in any human knowledge, in contrast to the Marxist theory of knowledge .which asserts this confidence, as we will see later

At

p: ۱۹۷

this point, we will not enter any dispute against these three theories: behaviorism, (p. ۱۶۱) the theory of the unconscious and historical materialism. We will dispute behaviorism and its alleged scientific wealth of Pavlovian experiments in our study of knowledge (Chapter ۵ of Part ۲ of the present work). There, we succeed in proving .that behaviorism does not provide an acceptable explanation of the mind

Similarly, in the book Our Economy, we studied and criticized historical materialism

extensively, since it is the scientific foundation of Marxist economics. The conclusions we reached condemn historical materialism in its philosophical and scientific contents, and show various contradictions between it and the direction of the historical movement in actual life. As for Freud's theory of psychoanalysis, the place reserved .for its discussion is in the book Our Society

Therefore, we are not concerned here with discussing these theories in relation to their specific fields. Instead, we will limit ourselves to mentioning them only in so far .as they relate to the theory of knowledge

Within the limits of the relation of these theories to the theory of knowledge, we can say that a proof by a scientific theory arguing against human knowledge and its .objective value involves a contradiction, and consequently, a scandalous impossibility

This is because a scientific theory, which is advanced against human knowledge and for the purpose of eliminating confidence in knowledge, also condemns itself, destroys its foundation, and is, therefore, discounted from consideration, since it is nothing but a part of the

p: ۱۹۸

knowledge that it fights and whose value it doubts or denies. That is why it is impossible to consider a scientific theory as an evidence for philosophical doubt and .as a justification for stripping knowledge of its value

The behavioristic theory portrays thought as a material state that occurs in the body of the thinker due to material causes, just as the state of blood pressure occurs in his .body. Because of this, the behavioristic theory strips thought of-its objective value

However, from the point of view of behaviorism itself, this theory must be nothing other than a specific state that occurs in the very bodies of the advocates of this (theory, and does not express anything but this. (p. ۱۶۲

Similarly, Freud's theory is a part of his conscious mental life. Thus, if it is correct that consciousness is a distorted expression of the unconscious forces and an inevitable

result of the control of those forces over human psychology, then Freud's theory loses its value, since in light of this it is not an instrument for expressing reality. Rather, it is an expression of Freud's appetitites and instincts that are hidden in the .unconscious

The same can be said about historical materialism which links the mind to the economic condition, and consequently, makes itself a product of a specific economic condition that Marx lived, and that was reflected in Iris mind as an expression of his demands concerning the notions of historical materialism. Hence, it becomes inevitable that historical materialism changes in

.accordance with the change of the economic condition

The Theory of Knowledge in our Philosophy .٧

We can infer from the study and criticism of the above doctrines the main points of our own doctrine concerning this subject. These points may be summarized as .follows

First, human knowledge is of two kinds, one of which is conception and the other assent. Conception, including its various forms, has no objective value. This is because it is nothing but the presence of a thing in our intellective faculties. If conception is stripped of all additional elements, it will not demonstrate the objective existence of a .thing outside knowledge

But assent or knowledge of the assent type is the only thing that has the quality of essentially disclosing objective reality. Thus, it is assent that discloses the existence of .the objective reality of conception

Second, all knowledge of the assent type can be attributed to necessary primary knowledge whose necessity cannot be proved and whose truth cannot be demonstrated. However, (p. ١۶٣) the mind is conscious of the necessity of accepting it and believing its truth. Examples of such knowledge are the principle of non-

contradiction, the principle of causality and the primary mathematical principles. Such .principles are the first rational light rays

By the guidance of these rays, all other knowledge and assents must be made. The more careful the mind is in applying and directing this light, the further away it is from error. It follows that the value of knowledge is dependent on the degree to which ,knowledge rests on these principles

p: ٢٠٠

.and the extent to which it draws its conclusions from them

For this reason, it is possible in light of these principles to acquire true knowledge in metaphysics, mathematics and natural science. This is so, even though the natural sciences differ in one respect: namely, that acquiring natural knowledge by applying the primary principles depends on experimentation, which prepares the conditions of application for human beings. In metaphysics and mathematics, on the other hand, .application may not need external experimentation

This is the reason why the conclusions of metaphysics and mathematics are, for the most part, certain, in contrast to the scientific conclusions in the natural sciences. Since application of the primary principles in the natural sciences requires experimentation that prepares the conditions of application, and since, on the whole, experimentation is deficient and falls short of disclosing all the conditions, the .conclusions based on such experimentation, therefore, are not certain

Let us take heat as an example of this. If we wish to discover the natural cause of heat, we perform a number of scientific experiments, and at the end, we postulate the theory that states that motion is the cause of heat. This natural theory is in fact the result of the application of a number of necessary principles and pieces of knowledge to the empirical data that we collected and studied. That is why this result .is correct and certain, inasmuch as it rests on those necessary principles

To begin with, the natural scientist gathers all the phenomena of

p: ٢٠١

heat (the subject under consideration), such as the blood of certain animals, hot iron, burned bodies, and other objects that are among the thousands of hot things. Then he begins to apply to these objects a necessary rational principle - the principle of (causality that states that for every event there must be a cause. (p. ١۶۴

By this he knows that there is a specific cause of such phenomena of heat; but even then, this cause is still unknown and fluctuates among a group of things. How then can one determine this cause amid that group of things? At this stage, the natural scientist seeks the aid of one of the necessary rational principles - that is, the principle that .states that a thing cannot be separated from its cause

In light of this principle, he studies that group that includes the real cause of heat. He considers a number of things as improbable, and thus eliminates them from further consideration. Animal blood, for example, cannot be the cause of heat, for there are .certain animals which are cold blooded

If animal blood were the cause of heat, it would not have been possible for heat to be separated from it. But some animals have cold blood. It is clear that considering as improbable that animal blood is the cause [of heat] is nothing but an application of the .above-mentioned principle that dictates that a thing cannot separate from its cause

In this way, the natural scientist studies everything that

p: ٢٠٢

he believes to be a cause of heat, and proves that it is not a cause by virtue of the judgement of a necessary rational principle. If, by means of his scientific experiments, he can grasp whatever may be a cause of heat and prove that it is not a cause - as he did regarding animal blood - then at the end of the scientific analysis he will grasp the .(real cause (of course, after eliminating other things from consideration

At that point, the scientific result becomes a decisive truth because it rests on necessary rational principles. If, on the other hand, two or more things remain at the

end and he could not determine the cause in light of the necessary principles, the .scientific result in this area will be presumptive

:From this we learn the following

The necessary rational principles are the general ground of the scientific truths, as .was stated at the beginning of this investigation

The value of scientific theories and results in experimental fields (p. ١۶۵) depends on the degree of the precision of those theories and results in applying the necessary principles to the totality of the empirical data collected. That is why one cannot give a scientific theory with full certainty, unless the experiment covers all the possible objects relevant to the issue under consideration, and is broad and precise enough to make it possible to apply to these possible objects the necessary principles; and consequently, to establish a unified scientific result on the

p: ٢٠٣

.basis of that application

In non-experimental fields, as in metaphysical issues, the philosophical theory rests on the application of the necessary principles to those fields. However, this kind of .application may be made in those fields independently of experimentation

Thus, concerning the issue of demonstrating [the existence of] the first cause of the world, for example, it is incumbent upon reason to apply its necessary principles to this issue in order to posit its affirmative or negative theory in accordance with these principles. As long as the issue is non-experimental, the application occurs by means of an operation of thinking and a pure rational inference independent of .experimentation

In this, the metaphysical issues differ from natural science with regard to many of their aspects. We say, 'with regard to many of their aspects', because sometimes, drawing a philosophical or a metaphysical conclusion from the necessary principles also depends on experimentation. With this, a philosophical theory has the same

.value and rank as the value and rank of scientific theories

Third, we have learned that knowledge of the assent type is that which discloses to us the objectivity of conception and the existence of an objective reality of the concept present in our minds. We also learned that this kind of knowledge is certain inasmuch as it rests on the necessary principles. The new issue is the extent to which the mental concept corresponds to the objective reality whose existence we believe by virtue of this concept – in other words, whether this

p: ۲۰۴

(concept is precise and correct. (p. ۱۶۶

The answer to this issue is that the mental concept that we form about a specific objective reality is two-sided. One side is the form of the thing and its specific existence in our mind. Due to this, the thing must be represented in it; otherwise, it .would not be a form of that thing

However, in another respect, it is fundamentally different from the objective reality. The reason for this is that it does not have the properties of the objective reality of that thing, nor does it have the various forms of effectiveness and activities of that reality. The mental concept that we form about matter, the sun or heat cannot, regardless of its precision and detail, perform the same effective role played by the .external objective reality of the mental concepts

With this, we are able to determine the objective side of the idea as well as the subjective side; that is, the side drawn from the objective reality and the side that is .attributed to the private mental formation

Thus, the idea is objective inasmuch as the thing is represented in it mentally. But due to the subjective management, the thing that is represented mentally in the form loses all the effectiveness and activity that it enjoyed in the external world. This difference between the idea and reality is, physically speaking, the difference between quiddity(۱)[and existence, as we will see in the second investigation of this

(work.(٢

Developmental Relativism .٨

point

Now that we have

p: ٢٠٥

.Al-mahiyya. The quiddity of a thing is its nature or essence in abstraction -١

This subjective aspect which the mental concepts involve is, according to us, - ٢ different from the subjective aspect of which Kant speaks, and which the subjective relativists assert. The subjective element, according to us, is not due to the conceptual aspect of knowledge, as Kent claims, nor to the fact that knowledge is the product of a material interaction. An interaction requires action on both sides. Rather, it is based on the difference between the two kinds of existence, i.e. the mental and the external. Thus, contrary to the view of the relativists, the thing that exists in the mental concept is the same as that which exists outside. However, the kind of .existence it has in the concept is different from the kind of existence it has externally

touched upon the various philosophical schools of the theory of knowledge, we come to the role of the dialectic concerning it. Dialectic materialists have attempted to .distance their philosophy from skepticism and sophistry

Hence, they rejected idealism and subjective relativism, as well as the various forms of skepticism and doubt to which a number of doctrines led. They asserted the possibility of knowing the world. Thus, at their hands, the theory of knowledge took the form of philosophical certitude which rests on the principles of the empirical .theory and the empirical doctrine

What then did they rely on for this important project and large philosophical plan? They relied on sense experience for refuting idealism. They also relied on motion for .refuting relativism

I. Sense Experience and Idealism

:Engels(١) makes the following statement concerning idealism

The strongest refutation of this philosophical illusion, and of every other philosophical illusion is work, trial, and industry in particular. If we can prove the soundness of our understanding of a certain natural phenomenon, by creating this phenomenon in ourselves and producing it by means of fulfilling its conditions, and further, if we can use it in achieving our ends, then this will be a decisive judgment against the Kantian (notion of the thing in itself.(٢) (p. ١۶٨

:Again, Marx says

The issue of knowing whether the human mind can grasp an objective reality is not a theoretical, but a practical issue. This is because a human being must establish the (evidence for the reality of his mind on the basis of the practical field.(٣

It

Friedrich Engels, (١٨٢٠-١٨٩۵). He was born in Bremen into a wealthy family. In ١٨۴۴, -١ he met Karl Marx in France. Engels was in agreement with Marx on the materialist theory of history. The two became close friends and collaborated on a number of .(works, the best-known of which is The Communist Manifesto (١٨۴٨

.Ludwig Feuerbach, p. ۵۴ -٢

.Ibid., p. ١١٢ -٣

is clear from these texts that Marxism attempts to demonstrate objective reality by sense experience, and to solve by scientific methods the great basic problem in .philosophy, namely, the problem of idealism and realism

This is one of many facets in which confusion occurs between philosophy and science. Some have attempted to study many of the philosophical issues by means of scientific methods. Similarly, some thinkers studied a number of scientific issues philosophically.

.Thus, error occurred in both philosophical and scientific issues

The problem over which idealists and realists quarreled is one in which sense experience cannot have the highest authority, nor the quality of being scientific. This is because the dispute concerning this problem centers on the issue of the existence .of the objective reality of sense experience

The idealist claims that things do not exist except in our sense perception and empirical knowledge. The realist, on the other hand, asserts an external existence independent of sense perception and experience. It is self-evident that this issue .places sense experience itself under examination and testing

Thus, the realist cannot demonstrate the objectivity of sense experience and sense perception by sense experience and sense perception themselves, nor can he refute idealism (p. ۱۶۹) by means of them, since(۱) they themselves are the subject of .disputation and inquiry between the two groups, the idealists and the realists

Hence, every objective problem can be considered scientific, and can be solved by the experimental scientific methods, only if the validity and objectivity of the scientific experiment has

p: ۲۰۷

.(Text: ma' anna (even though -۱

.already been admitted

Thus, one can employ scientific methods in studying and solving the problem of the size of the moon, the distance of the sun from the earth, the structure of the atom, the composition of the plant or the number of simple elements. But if the same experiment is made the subject of investigation, and if the discussion focuses on its objective value, then by virtue of the experiment itself, there would be no room for scientific evidence in this area concerning the validity of the experiment and its .objective value

Therefore, the objectivity of sense perception and experimentation is the foundation on which the structure of all the sciences depends. No scientific study or treatment can take place except on the basis of it. Hence, this foundation must be tackled in a .purely philosophical manner, before taking up any scientific truth

If we study the issue philosophically, we find that the experimental perception is nothing but a form of conception. Thus, regardless of variation in the totality of experiments, nevertheless they provide human beings with different empirical pieces of knowledge. We have already discussed sense perception in our study of idealism. There, we said that as long as sense perception is nothing but conception, it does not .prove objective reality and demolish the idealistic notion

In fact, we must start with the rational doctrine, in order to establish on its basis the realistic notion of sense perception and experimentation. Thus, we must accept that there are necessary principles in the

p: ۲۰۸

mind that are true. In light of such principles, we demonstrate the objectivity of sense .perception and experimentation

Let us now take as an example of this the principle of causality, which is one of those necessary principles. This principle asserts that for every event there is a cause external to it, and that on (p. ۱۷۰) the basis of such a cause, we are assured of the existence of the objective reality of the sense perception and ideas that occur in us, for they require a cause from which they can proceed, this cause being the objective .reality

Thus, by means of the principle of causality, we can prove the objectivity of sense perception or sense experience. Is it possible for Marxism to adopt the same method? .Of course not. The reasons are these

First, it does not accept necessary rational principles. According to it, the principle of causality, for example, is nothing but an empirical principle demonstrated by sense

experience. Therefore, it cannot be considered a basis for the validity and objectivity .of sense experience

Second, the dialectic explains the development and events of matter by means of contradictions internal to matter. According to its explanation, natural events do not require an external cause. This point will be studied in full detail in the second .investigation

Thus, if this dialectical explanation is sufficient for justifying the existence of natural events, why then do we go further than this and are required to suppose an external cause and an objective reality for any

p: ٢٠٩

knowledge that arises in our souls? Indeed, it becomes possible for idealism to assert about the phenomena of knowledge and sense perception exactly the same thing that the dialectic asserts about nature, and to claim further that such phenomena are, in their occurrence and succession, subject to the law of contradiction (qanun naqd .an-naqd(١)) which attributes change and development to the internal content

From this we learn that the dialectic does not only veil us from a cause external to nature, but consequently also veils us from this nature itself, as well as from anything (external to the world of consciousness and knowledge.(٢) (p. ١٧١

Let us present some of the Marxist texts that had attempted to treat this problem [in a .manner] not in accordance with the nature and philosophical character of Marxism

:We quote first from Roger Garaudy

The sciences teach us that human beings appeared on the face of the earth at a very late stage. The same is true of the mind accompanying them. For us to assert that the mind had existed on earth prior to matter, is to assert that such a mind was not the (human mind. Idealism in all its forms cannot escape theology.(٣

:Again

The earth had existed even prior to any sensitive being, i.e. prior to any living being. No organic matter could have existed on (p. ۱۷۲) this planet in the very early stages of the existence of this planet. Inorganic matter, therefore, preceded life which had to grow and develop throughout many thousands

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۱ - Literally, the law of contradicting contradiction. Instead, it should read 'the law of contradicting non-contradiction', since it asserts that contradiction is possible. Thus, it is the contrary of the principle of non-contradiction which asserts the impossibility of contradiction.

۲ - Engels asserts in the above quoted passage that the creation and development of a phenomenon have objective value, and that in this there is a decisive refutation of the idealistic tendencies. I think that if this assertion is made by the Marxist school, it would not involve any specific philosophical meaning. This is in spite of the fact that it is possible for the philosophical researcher to construct out of this a specific evidence that shows that the objective reality rests on the knowledge of the thing in itself (al-'ilm al-huduriyy), due to the fact that the agent is known by means of its effects and by the knowledge of the thing in itself that it creates. The knowledge of a thing in itself is the same as the objective existence of that thing. A human being, therefore, is in contact with the objective reality of the things that he knows in themselves. Hence, if idealism discounts from objective knowledge knowledge of the form of a thing (al-'ilm al-husuliyy), which does not link us to anything other than our ideas, then knowledge of the thing in itself will be sufficient for realism. However, this evidence is based on a false notion of knowledge of the thing in itself. The ground for our knowledge of a thing is nothing but the knowledge of the form of that thing. The knowledge of the thing in itself, on the other hand, does not mean anything other than the presence of the real, known object to the knower. For this reason, every human being knows his soul in itself, even though many people deny the existence of the soul. The space designated for this study does not permit elaboration of this point.

۳ - Ma Hiya al-Madda, p. ۳۲.

of years before the appearance of human beings accompanied by knowledge. Thus,

science leads us to ascertain that the world had existed in states in which no form of (life or sensibility was possible.(۱

This is how Garaudy considers the scientific truth which asserts the necessary priority of the growth of inorganic matter over organic matter as evidence for the existence of the objective world. For as long as organic matter is the product of a long development, and one of the late stages of the growth of matter, it is impossible for matter to be created by the human consciousness which, in turn, is posterior to the existence of living organic beings that have a central nervous system. It is as if Garaudy had supposed in advance that idealism admits the existence of organic .matter. On this supposition, he based his reasoning

However, there is no justification for this supposition, for matter in its various kinds and divisions - be they organic or otherwise - is not, according to the idealistic notion, anything but a mental form that we create in our perception and conception. The evidence that Garaudy gives us involves a petitio principii (musadara)(۲), and begins .with a point that idealism does not admit

:Second, the following is a passage from Lenin

If we wish to present the issue from the only sound point of view; that is, from the point of view of dialectical materialism, we must ask whether electrons, air, etc., exist outside the human mind, and

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.Ibid., p. ۴ -۱

A petitio principii is a logical fallacy assuming in the premises the conclusion that -۲ .must be proved

.whether or not they have an objective reality

The answer to this question (p. ۱۷۳) must be given by the scientists of natural history whose answer is always unwavering and affirmative, since they do not hesitate to

admit the priority of the existence of nature over the existence of human beings [or] (over the existence of organic matter.(۱

In this text, we notice the same sources that Garaudy used, together with high praise for science and a consideration of it as a final determinant of this issue. Since the science of natural history has demonstrated that the existence of the world predates the appearance of consciousness and knowledge, it is incumbent upon the idealists to .submit to the scientific truths and to accept them

However, the science of natural history is only a form of human knowledge. But idealism denies the objective reality of all knowledge, regardless of its form. Science, according to it, is only pure subjective thought. Is science not the result of various experiments, and are not such experiments and sense perceptions the subject of the debate that centers on whether or not they have an objective reality? How then can ?science have the decisive word concerning this issue

:Third, this is what Georges Politzer says

No one doubts that the material life of society is independent of human consciousness, for there is none, whether a capitalist or a proletariat, who desires an (economic crisis, even though such a crisis occurs unavoidably.(۲

This is a new style that Marxism adopts

.Ibid., p. ۲۱ -۱

.Al-Maddiyya coal-Mithaliyya ft al-Falsafa, p. ۶۸ -۲

in responding to idealism. Thus, in this text, Politzer (p. ۱۷۴) does not rely on scientific truths. Instead, he bases his evidence on intuitive truths, on the ground that every one of us is aware intuitively that he does not wish many of the events that take place, nor desires their existence. Still, such events occur and exist contrary to one's wishes. Therefore, events and their continuous succession must have an independent

.objective reality

However, this new attempt is no closer to success that the previously mentioned attempts. The reason is that the idealistic notion, according to which all things are attributed to conscious ideas and perceptions, does not claim that such conscious ideas and perceptions are the product of people's choice and their free will, nor .subject to general laws and principles

Rather, idealism and realism agree that the world runs in accordance with laws and principles that apply to it and govern it. They differ from each other, however, in the .explanation of this world and the consideration of it as subjective [or] as objective

Once again, the conclusion we assert is that it is not possible to attribute a sound view to the realistic philosophy, and to accept the objectivity (al-waqi'iyaa) of sense perception and sense experience, except on the ground of the rational doctrine which asserts the presence of necessary rational principles independent of sense experience. But if we begin the investigation of the issue of idealism and realism with sense experience or sense perception that is the

p: ٢١٣

source of conflict between the idealists and realists, we will run in an empty circle from which we will not be able to emerge with a result in favor of philosophical .realism

II. Sense Experience and the Thing in Itself

Marxism opposes some forms of the notion of the thing in itself as presented by Kant. Similarly, it opposes the idealistic conceptual notions. Let us, therefore, examine its .method with regard to this matter

(Georges Politzer makes the following statement: (p. ١٧٥

In fact, the dialectic, including the idealistic dialectic of Hegel, asserts that a distinction between the qualities of a thing and the thing in itself is an empty distinction. If we

know all the qualities of a certain thing, we also know that thing in itself. [How then could it be](۱) that the qualities of that thing are independent of it? It is particularly in .this, that the meaning of the materiality of the world is determined

However, since one knows the qualities of this objective reality, one cannot say of it that it is unknowable. Thus, it is nonsense to say, for example, that your personality is one thing and your qualities and defects are another, and that I know your qualities and defects, but not your personality. This is because the personality is precisely the .totality of the defects and qualities

Similarly, the art of photography is the totality of the acts of taking pictures. It is, therefore, nonsense to say that there are paintings, painters, colors, styles and [painting] schools, [on the one hand], and that

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۱- Text: ma yabga (it remains that).

there is also photography in itself which is suspended above reality and is unknowable. There are no two divisions to reality. Rather, reality is any unified thing .whose various successive facets we discover by application

The dialectic has taught us that the different qualities of things reveal themselves by means of the internal conflict of opposites, and that it is this conflict that creates change. Thus, the state of fluidity in itself is precisely the state of relative equilibrium (whose internal contradiction is revealed at the point of freezing or boiling.(۱

:Concerning this, Lenin says

There is no basic difference, and there cannot be such a difference between the phenomenon and the thing in itself. Further, there is no difference between what is known and what will be known later. The deeper our knowledge of reality is, the more (the thing in itself gradually becomes a thing for us.(۲) (p. ۱۷۶

In order for us to study Marxism in this text, we must distinguish between two

.meanings of the notion of separating the thing in itself from the thing for us

First, since human knowledge depends, according to the experiential or empirical principle, on the senses, and since the senses do not deal with anything except the phenomena of nature, and do not penetrate to [its] heart and essence, human knowledge, therefore, is limited to these phenomena that are accessible to sense experience. Due to this, there is a gap separating the phenomena and the essence. ,The phenomena are the things for us

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No reference to this passage is given by the author. It is not clear that it ends here -۱ .either

.Ibid., pp. ۱۰۸-۹ -۲

since they are the external and knowable aspect of nature. The essence, on the other .hand, is the thing in itself to which human knowledge does not penetrate

Georges Politzer attempts to destroy this duality by eliminating either the matter or the essence from objective reality. He emphasizes that the dialectic does not distinguish between the qualities of the thing and the thing in itself. Instead, it .considers the thing as the totality of the qualities and phenomena

It is clear that this is a kind of idealism Berkeley advocated when protesting against the philosophers' conviction that there is a matter and an essence behind the qualities and phenomena that appear to us in our sense experience. This is the kind of idealism which is made inevitable by the empirical or experiential principle. As long as the senses are the primary foundation of knowledge and do not grasp anything except the phenomena, it is necessary to drop the essence out of consideration. But if the essence is dropped out, there would remain nothing on the scene other than the .phenomena and qualities that are knowable

Second, the phenomena that one can perceive and know are not in our cognitive faculties and senses as they are in their objective reality. The duality here is not

between the phenomena and the essence, but between the phenomena as they appear to us and the phenomena as they exist objectively and independently. Can Marxism destroy this kind of duality and prove that the objective reality appears to

p: ۲۱۶

(us in our ideas and sense perceptions as it is in its independent external realm? (p. ۱۷۷

Our answer is in the negative, since knowledge, according to the materialistic notion, is purely a physiological act. With respect to this, we must know the kind of relation that exists, according to the materialistic notion - both on the basis of mechanical materialism and dialectical materialism - between knowledge, thought and sense .perception and the objective thing

On the basis of mechanical materialism, the concept or the sense perception is a mechanical reflection in the nervous system of the objective reality, as the reflection of a picture is in a mirror or a lens. Mechanical materialism does not acknowledge that matter involves motion and essential activity. Instead, is explains all phenomena in a mechanical fashion. Due to this, it cannot understand the relations of external matter .to the mental activity of the nervous system except in that fixed form of reflection

At this point, mechanical materialism faces the following two questions: (۱) is there any objective thing in sense perception - that is, anything which is independent of human beings, and which is transferred to the senses from the external reality of matter? (۲) if there is such a thing in sense perception, then how is it transferred from ?the objective reality to the senses

Mechanical materialism cannot answer the first question affirmatively. This is because if is affirms the presence of an objective thing in sense perception, then it has to justify the manner in

p: ۲۱۷

which the objective reality is transferred to the private sense perceptions; that is, it .has to answer the second question and explain the process of transference

But this is something it cannot do. That is why it is necessary to posit the theory of reflection and to explain the relation between the idea and the objective thing as it explains the relation between the picture in a mirror or a lens and the objective reality (that is reflected in them. (p. ١٧٨

As for dialectical materialism, which does not allow the separation between matter and motion, and considers as motion the manner in which matter exists, it has attempted to give a new explanation of the relation between the idea and the objective reality on the basis of this (inseparability of matter from motion]. Thus, it claimed that the idea is not a pure mechanical picture of that reality. Rather, reality is transformed iota an idea; for each, the reality and the idea is a specific form of .motion

The qualitative difference among the forms and kinds of motion does not prevent the movement of the transformation from one form to another. Thus, since in the manner of existing objective matter is a specific form of motion, the physical motion of a thing changes into a psychophysiological motion in our senses. The physiological motion changes into a psychological motion of the idea.(١) Thus, the position of the mind is not .one of negativity, nor is the reflection mechanical, as mechanical materialism asserts

This

.See Ma Hiya al-Mfidda, p. ۴٨ -١

attempt an the part of dialectical materialism cannot succeed in revealing the relation between a thing and its idea except as a relation between a cause and its effect or a reality and its reflected picture. The reason is that the transformation of the physical motion of a thing into a physiological motion, and consequently into a psychological motion, is neither a sound notion nor a reasonable explanation of sense perception or .thought

The transformation means the perishing of the first form of the motion and its

transmission into a new form, as we say concerning the motion of the hammer over the anvil – namely, that it is transformed into heat. Heat and mechanical motion are .two forms of motion

The force which expresses its existence in a specific form of motion – that is, mechanical motion – is transformed from that form into a new form, heat, in which it expresses itself. Heat retains the same amount of force that had expressed its existence in mechanical motion. This is the exact meaning of the transformation (p. ١٧٩) of motion from one form into another.

Let us assume that this is possible. Still, it is not possible to explain sense perception or thought by means of such a process of transformation. The reason is this. The physical motion of the sensible objective reality is not transformed by sense perception into a psychological motion; for transformation means the change of .motion from one form to another

It is clear that the natural

p: ٢١٩

or physical motion of sensible matter is not changed thus into a physiological and [then] into an ideational motion. This is because its change in this way means the elimination of the first form of the motion; and consequently, the elimination of the .matter which expresses its existence in that particular form

The objective motion of a sensible thing is not like the motion of the hammer. Again, sense perception is not a transformation of that objective motion (the manner in which matter exists) into a psychological motion, as the motion of the hammer is transformed into heat; otherwise, sense perception would be a process of .substituting matter by the idea, as the mechanical motion is substituted by heat

Because of this, the issue of perception is not one of the transformation of the physical motion into a psychological motion which is nothing in itself other than a transformation of the objective reality into an idea. Rather, for die sensible or

perceptible thing, there is an objective reality; and for sense perception, there is .another reality in us

But as long as there are two kinds of existence, a subjective existence of sense perception and thought, and an objective existence of the sensible thing, we cannot understand the relation between these two kinds of existence except as we understand the relation between a cause and an effect, or as we understand the .relation between a reality and a picture reflecting that reality

With this, we clearly encounter the basic issue that concerns

p: ۲۲۰

us. Since the idea is an effect of the objective thing, and since. the understood relation between both of them is that of causality, why then should we assume that this effect and its cause differ from other effects (p. ۱۸۰) and their causes, and are distinguished from them by a certain characteristic - namely, that this effect pictures for us its ?cause and reflects it fully

There are many physiological functions that are effects of specific external causes. But we have not found any of these effects capable of picturing its cause. Instead, they vaguely indicate that they have causes external to their sphere. How then can ?we acknowledge that the idea has more than this vague indication

Suppose that Marxism succeeds in explaining thought and perception by means of a process of transformation of physical motion into psychological motion. Would this mean that the idea can fully correspond to the objective reality? This explanation makes us view the idea and its external reality as we view heat and the mechanical motion which is transformed into heat. It is clear that the qualitative difference between the two forms of motion in both heat and the mechanical motion makes them non-correspondent to each other. How then can we suppose correspondence ?between the idea and its objective reality

The Marxist school appears troubled and confused at encountering this problem. We

can draw from a number of various confused texts two pieces of evidence offered by this school concerning the present point. One of these

.is philosophical evidence, and the other scientific biological evidence

:The philosophical evidence is summed up in the following text

Thought is capable of full comprehension of nature. This is because it is a part of nature, due to the fact that it is the product of nature and the highest expression of it. (Thought is nature conscious of itself in the innermost being of humanity.(۱

:Also, Lenin says

The universe is the motion of matter which is governed by laws. Since our knowledge is nothing other than a superior product of nature, it cannot but reflect (p. ۱۸ ۱) these (laws.(۲

:In his book, Anti-Duhring, Engels tried to show the following

Philosophical materialism is the only thing capable of establishing the value of knowledge on firm principles, since it considers consciousness and thought as two givens. At times, they were opposite nature and existing things. Therefore, this unavoidably leads us to find as very great the full agreement between our .consciousness of nature, the thought of existents, and the laws of thought

But if we inquire about what thought and consciousness are and about their origin, we find that human beings themselves are the product of nature. They grew in a community and with the growth of that community. Because of this, it becomes unnecessary to show how the products of human thought, which in the last analysis are the products of nature, are not in contradiction, but in agreement with the rest of (the solid nature.(۳

Thought, in the Marxist view, is a part

.No reference to this passage is given by the author -۱

.No reference to this passage is given by the author -۲

.Ibid., pp. ۴۶-۷ -۳

of nature or a superior product of it. Let us assume that this view is true, [even though] it is not. Is it sufficient for proving the possibility of full knowledge of nature? It is true that if thought is a part of nature and a product of it, then it will indeed .represent the laws of nature

But this does not mean that, by virtue of this, thought becomes a sound knowledge of nature and its laws. Are not the metaphysical thought and the idealistic thought thoughts, and consequently, part of nature or products of it, according to the claims of materialism? Further, are not all the contents of the physiological processes natural (phenomena and products of nature? (p. ۱۸۲

The laws of nature, therefore, are represented in the thought of dialectical materialism and operate in accordance with it, as they are represented in the idealistic thought and the metaphysical thought alike. Similarly, they are represented in all the natural processes and phenomena. Why then should the Marxist thought be the sound knowledge of nature, to the exclusion of any other such thoughts, even ?though all such thoughts are natural products reflecting the laws of nature

From this we learn that the mere consideration of thought as a natural phenomenon and product is not sufficient for constituting true knowledge of nature. Indeed, the only relation it posits between the idea and its subject is that of causality which is fixed between every effect and its natural cause. Rather, an idea is

true knowledge if we accept chat it has the quality of disclosure and picture taking .which distinguishes is from everything else

The biological evidence concerning the correspondence of knowledge or sense :perception to objective reality is expounded in the following text

At the level of sense perception, [an idea] cannot be beneficial biologically in (preserving life, except if it reflects objective reality.(۱

:Again

If it were true that sense perception is merely symbolic and has no resemblance to the [actual] thing, and if, consequently, it were possible for numerous different things to correspond, or for illusory and actual things to have exact resemblance to each other, then the biological adaptation to the community would be impossible - if we assume that the senses do not permit the determination of our direction with .certitude concerning the position of things and the response to them effectively

However, all the biological practical activity of human beings and of animals indicates (the degrees of the completeness of this awareness.(۲) (p. ۱۸۳

It is clear that the relativity of sense perception does not mean that numerous different things share in one sensible symbol so that this symbol becomes completely deficient in value, and cannot specify the direction which preserves our lives and .determines our stand regarding external things

Rather, the physiological relativity theory is based on the principle that every kind of sense perception is a symbol pertaining to a specific objective reality that cannot be symbolized by any other kind of sense perception. In light of such

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.Ma Hiya al-Madda, p. ۶۲ -۱

.Ibid., p. ۳۶ -۲

symbols, we can determine our stand with regard to things, and respond to them with the effectiveness which is harmonious with the symbol and which the nature of life .requires for the symbol

point

Subsequently, Marxism took up the relativity theory of truth. It considered it a kind of sophistry; for, according to this theory, relativity means a change in the truths from a subjective point of view. Marxism asserted relativity in a new form in which it clarified that truths change in accordance with the laws of development and change in the .external matter

Thus, there are no absolute truths in the human mind. Rather, the truths that we know are always only relative. What is at one time true is itself false ac another time. This is something on which both relativism and Marxism agree. Marxism adds that this relativity and this change and development are in fact nothing but a reflection of the change of reality and the development of matter which we represent in the truths of .our ideas

In truth, relativity in itself is an objective relativity, and not a subjective relativity produced by the thinking subject. That is why it does not mean the absence of true human knowledge. Rather, the developing relative reality which reflects nature in its development is the true knowledge according to the dialectical view. Again, we cite a (passage from Lenin: (p. ١٨۴

The comprehensive complete flexibility of nations, i.e. the flexibility that extends as far as to represent opposites is the crux

p: ٢٢۵

of the matter. If such flexibility is used in a subjective manner, it leads to purism (al-intiqd'iyya) and sophistry. But the flexibility which is used objectively, i.e. the flexibility that reflects all the aspects of the movement and unity of the material development is the dialectic only which is the proper reflection of the everlasting development of the (world (ad-Dafatir al-Falsafiyya, p. ٨۴).(١

:He also says

By our proceeding from the pure relativity theory, we can justify all kinds of sophistry (ibid, p. ۳۲۸).(۲)

:Further, Kedrov(۳) says

But there may be a certain subjective tendency, not only when we operate on the basis of the fixed and frozen categories of formal logic, but also when we operate by means of flexible and changing categories. In the former case, we reach metaphysics; while in the latter case, we reach the relativity theory, sophistry and purism.(۴)

:He adds

The Marxist dialectical method requires that the reflection of the objective world in the human mind corresponds (p. ۱۸۵) to the reflected thing, and that is involves nothing foreign to that thing, i.e. nothing which is brought in by the subjectivity. From the point of view of relativism and the flexibility of notions, the subjective interpretation is a completely foreign addition. This is exemplified in the exaggeration of subjective metaphysics concerning the abstract concepts of formal logic.(۵)

These texts show that Marxism wished to erect its philosophical certitude on the basis of its attempt to apply the law of the dialectical to reality. If human beings

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۱- Al-Mantiq ash-Shakliyy wal Mantiq ad-Dialaktikiyya, pp. ۵۰-۱.

۲- Ibid., p. ۵۱.

۳- Kedrov, Boniface Mikhailovitch, Russian philosopher, chemist and historian of natural science (۱۹۰۳-). His works, especially in the various branches of science, are best known in Russia. Among his most important works are the following: Engels and the Natural Science (۱۹۴۷), The Atomism of Dalton (۱۹۴۹) and Great Discovery (۱۹۵۸).

۴- Ibid., p. ۵۰.

۵- Ibid., p. ۵۱.

do not possess one absolute truth in the totality of their ideas, the denial that their

ideas have absolute truths is not due to the fact that their ideas are an aggregate of absolute errors which makes sound knowledge completely impossible for them, but to the fact that the truths possessed by the human mind are progressive truths that grow and integrate in accordance with the laws of the dialectic. For this reason, these .truths are relative and in continuous development

:Here is another citation from Lenin

The mind, i.e. the human [mind] must not conceive truth as a mere motionless, faint or dull scene or picture. Knowledge is the infinite endless closeness of the mind to the thing. One must understand the reflection of nature in the human mind not as a motionless static abstract thing free from contradictions, but as an endless process of the development of motion for creating contradictions, and for resolving these (contradictions (p. ۱۸۶) (ibid, p. ۱۶۷-۸).(۱

:He continues

In the theory of knowledge, as in all other areas of knowledge, it is important that thought be dialectical, i.e. that no assumption be made that our consciousness is fixed (and resists development.(۲

:Kedrov says

The dialectical method does not encounter this judgment as a complete thing, but as an expression of an idea capable of growth and movement. Regardless of the simplicity of a certain judgment, and regardless of how common that judgment appears to be, it contains the seeds or elements of dialectical contradictions within ,whose scope

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.Ibid., p. ۱۰ -۱

.Ibid., p. ۱۱ -۲

(all human knowledge moves and grows.(۱

Kedrov points to a statement in which Lenin determines the style of the dialectical :method of thought. This statement is the following

The dialectical method requires that a thing be taken in its development, growth, and (change.(۲

:He follows this by saying

Contrary to the dialectical method, formal logic resorts for solving the problem of truth to solving this problem in the most basic manner; that is, by means of the formula 'yes-no.' It knows in one word, and in an absolute fashion the answer to the '?question: 'Does (p. ۱۸۷) that phenomenon exist or does it not

The answer, for example, is 'yes' to the question: 'Does the sun exist?' And the answer is 'no' to the question: 'Does a square circle exist?' In formal logic, a human being stops at very simple answers, [such as] 'yes' or 'no,' i.e. at a coral distinction between truth and falsity. Due to this, truth is encountered as something given, stable, fixed, (final and fully incompatible with falsity.(۳

From these Marxist texts, we draw three views that are closely linked to one another. The first is that truth grows and develops in a way that reflects the growth and development of reality. The second is chat truth and falsity may come together, such chat one idea may be false and crate [at the same time]. There would be no absolute incompatibility between falsity and truth, as formal logic asserts, according to Kedrov. ,The third is that any judgement

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.Ibid., pp. ۲۰-۱ -۱
.No reference to this passage is given by the author -۲
.Ibid., p. ۱۴ -۳

regardless of how clear its truth appears, involves a specific contradiction; and consequently, an aspect of falsity. It is such a contradiction that makes knowledge

.and crush grow arid become whole

But does the truth in the human mind develop and integrate as a truth? Further, is it possible for the truth to come together with falsity? Further still, does every truth involve its contradictory, and grow by virtue of this internal contradiction? This is what (we actually wish to find out. (p. ١٨٨

a. The Development and Movement of Truth

To begin with, we must know what is intended by the phrase 'the truth in the human mind' whose growth and integration Marxism asserts. Realism asserts the existence of a reality outside the limits of consciousness and mind, and considers any kind of .thinking as an attempt to reflect and know this reality

Due to this, the truth is the idea that corresponds to and resembles this reality. Falsity, on the other hand, is represented in the idea, opinion or belief chat does not correspond to this reality or resemble it. The criterion that distinguishes between the true and the false, and between truth and falsity, is the correspondence of the idea to .reality

Truth, according to this realistic notion, is the subject of the sharp philosophical dispute between the realists on the one hand and the conceptualists and sophists on the other hand. The realists affirm the possibility of such a criterion, while the conceptualists and sophists deny such a possibility, or waver as to whether human beings

p: ٢٢٩

.can attain it

However, the expression 'truth' has been used in a number of other senses that are completely different from its above-mentioned realistic sense. And thus, this different sense was distanced from the basic area of disputation between the philosophy of .certitude and those of skepticism and denial

The development of subjective relativism was one of the recent developments chat truth underwent. This development sought to posit a new meaning for the expression 'truth'. Thus, it considered truth as nothing but the knowledge that agrees with the .nature of the nervous system and the conditions for knowledge in this system

We have already discussed subjective realism, and have said that to attribute this sense to truth means that truth is no more than a subjective thing. Therefore, it would not be truth, except nominally. That is why, in the sense given by subjective relativism, truth loses its quality as the subject of the philosophical dispute and conflict in philosophy between (p. ۱۸۹) the tendency of certitude and that of skepticism and denial. Hence, subjective relativism is one of the doctrines of skepticism covered by .the veil of truth

There is another philosophical interpretation of truth. This is the interpretation offered by William James(۱) in his new doctrine of human knowledge - that is, pragmatism or the doctrine of instrumentalism.(۲) But this interpretation is neither closer to realism nor more distant from the philosophies of skepticism and denial than .the previous interpretation that was attempted by subjective relativism

The doctrine of pragmatism is summed up

۱- William James, American philosopher and psychologist, and the brother of Henry James, the novelist (۱۸۴۲-۱۹۱۰). He received an M.D. from Harvard, at which he later taught anatomy, psychology, physiology and philosophy. From Charles Peirce he borrowed and popularized the term 'pragmatism'. According to this doctrine, the meaning and truth of any statement can be reduced to a specific consequence in the future practical life. His best-known works are: The Pins of Psychology, The Will to .Believe, The Varieties of Religious Experience, Essays in Radical Empiricism

۲- Pragmatism or the doctrine of instrumentalism is a recent philosophical movement according to which the criterion of the meaning and, according to some, such as William James, the truth of propositions must be interpreted through their

.consequence

in advancing anew criterion for measuring thoughts and for distinguishing between their truth and falsity. This criterion is the capacity of a specific idea to accomplish the .goals of a human being in his practical life

Thus, if opinions are in conflict and opposition, the most real and true among them would be the most beneficial and useful – that is, the opinion whose benefit is demonstrated by practical experience. The ideas that do not achieve a practical value and do not have beneficial effects when encountering life experiences are not at all true. Rather, they must be considered empty expressions carrying no meaning .whatsoever

Thus, according to this doctrine, all truths can be attributed to a higher truth concerning existence, namely, primarily, the preservation of life and then, secondarily, its elevation to perfection. Hence, every idea that can be used as an instrument for reaching this highest truth is clearly proper and a truth that muse be accepted. On the other hand, any idea that does not function in this way must not be .adopted

On the basis of this, Bergson(١) defined truth as a creation of something new, and not a discovery of something that had already existed.(٢) Schiller(٣) defined it as that which serves human beings alone. Dewey(۴) identified the function of the idea by saying that the idea is an instrument for elevating life, and not a means for knowing (things in themselves. (p. ١٩٠

This doctrine involves a clear confusion between the truth itself and the basic

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Henri Bergson, French philosopher (١٨۵٩-١٩۴١). He taught that philosophy must mold -١ itself in accordance with the data of experience. We are endowed with intuition and reason. The former perceives the dynamic aspect of things – this is the more basic and real aspect of consciousness – while the latter tends toward their static aspect.

These two states of consciousness correspond to two states in the universe. His most important writings are: Matter and Memory, Laughter, Introduction to Metaphysics, Creative Evolution and The Two Sources of Morality

Bergson: Hayatuh wa-Falsafatuh: Muntakhabat, Silsilat Zidni 'Ilman, (٢٥), - ٢ [.manshurat 'Uwaydat. [No page number is given

F.C.S. Schiller, English philosopher (١٨۶۴-١٩٣٧). According to Schiller, both truth and -٣ reality are similar to goodness and beauty in that they are, in part, the result of human intention and desire. Schiller is a strong believer in human freedom and creativity. His best-known works are: The Riddles of the Sphinx, Humanism, Logic for Use, Must .Philosophers Disagree? and Our Human Truths

John Dewey, American philosopher (١٨۵٩-١٩۵٢). His most important works are:- ۴ Psychology, Ethics, Reconstruction Philosophy, Human Nature and Conduct, Experience and Nature, The Guest for Certainty, Art as Experience and Experience .and Education

goal of attempting to attain the truth. The goal of attaining truths may be to utilize them in the practical field and to be enlightened by them during life experiences. However, this is not the meaning of truth in itself. In what follows, we will sum up our .response to the above view of truth

First, to give truth a pure practical meaning and to strip it of the quality of disclosing what exists and what is prior is an unrestricted admission of philosophical skepticism for whose sake conceptualism and sophistry fight. The mere retention of the .expression of truth in another sense is not sufficient for rejecting it or getting rid of it

Second, it is our right to inquire about this practical benefit that pragmatism considers the criterion of truth and falsity. Is it the benefit of a specific thinking individual, or the benefit of a group? (If the latter) then who is this group, and what are its limits? Does it refer to humankind as a whole, or only in part? None of these assumptions(١) gives this new doctrine a reasonable explanation. If the individual benefit is the proper criterion of truth, then truths must differ in accordance with the interests of .individuals

But with this, a frightening social chaos would occur when every individual chooses his own truths, without any attention to the truths of others, which proceed from their own interests. This chaos constitutes a serious harm to all individuals. If, on the other hand, the general human

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That is, no affirmative answer to any of these questions makes sense in the context -١ .of the doctrine of pragmatism

benefit is the criterion, then this criterion will be dependent on a number of investigations and fields, due to the fact that human interests are often in conflict and .at variance

Indeed, at that point, one cannot determine any truth, regardless of its kind, unless it were subject to long social experience. This means that James himself cannot consider as true his doctrine of pragmatism, unless it has undergone such experience, and has asserted its own worthiness in practical life. Thus, James puts an end to this (doctrine itself. (p. ١٩١

Third, the fact that there is a human benefit in the truth of a certain idea is not sufficient for accepting this idea. The disbeliever cannot accept religion, even if he agrees that it plays an effective role in rectifying mankind, and even if he lives its hopes and consolation in his practical life. George Santayana,(١) for example, describes belief as a beautiful mistake, more in harmony with the inclinations of the .soul than life itself

Thus, accepting a certain idea is not the same as the other kinds of practical activity that human beings can perform if assured of their benefit. Thus, pragmatism is based on the undifferentiation between acceptance (a specific mental activity) and the various practical activities that human beings perform in light of their interests and .benefits

We conclude from this study that the only notion of truth that realism can adopt is that

it is the idea that corresponds to reality. If Marxism that preaches the

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George Santayana, Spanish-American philosopher: (۱۸۶۳-۱۹۵۲). He was born in - ۱ Madrid into a wealthy family, but his education and academic experience was mostly achieved in the United States, at Harvard in particular. His main works are the following: Sense of Beauty, Life of Reason, Skepticism and Animal Faith and Realms of .Beings

possibility of true knowledge and, because of this, rejects the conceptual, skeptical and sophistical tendencies means by 'truth' something ocher than the realistic sense, .then it is not at all incompatible with these tendencies

For the tendency of skepticism and chat of sophistry reject truth only in the sense of the correspondence of the idea to reality, and do not reject truth in just any sense. Therefore, Marxism cannot be free from the tendencies of skepticism and sophistry, .just because it takes the expression of truth and recasts it in a new notion

For the purpose of truly rejecting those tendencies, Marxism must adopt truth in the realistic sense on which the philosophy of realism rests, if one is to consider Marxism .a realistic philosophy that truly upholds the objective value of mind

If we understand the proper realistic notion of truth, it becomes possible for us to find out whether truth, in this sense on which realism rests, can develop and change (through a linear movement, as Marxism primarily taught. (p. ۱۹۲

It is impossible that truth develops and grows, while being limited at every stage of its development by the specific limits of every stage. Indeed, the idea, or every idea, .must be one of two things: it is either an absolute truth, or it is a falsity

I know that these words evoke disgust in the Marxists and instigate them to bombard metaphysical thought with the accusations they have become accustomed to ascribe it. Thus, they say that metaphysical thought freezes

nature and considers it a state of fixedness and stability, for metaphysical thought accepts absolute truths and rejects the principle of development and movement in nature. But the principle of absolute truth has completely collapsed due to the .discovery of the development and movement of nature

However, the fact that our dear reader must understand is that acceptance of absolute truths and the rejections of change and movement in nature do not at all mean the freezing of nature, nor do they negate the development and change of objective reality. Our philosophical notions accept development as a general law in the natural world, and its external presence as a continuous state of becoming. But at .the same time, we reject all temporality and change of truth

To clarify this point, let us assume that a certain cause makes heat more intense in a specific water. The temperature of this water is actually in continuous movement and gradual development. This means that every degree of temperature that this water reaches is a temporary degree. In the rise of its temperature, water will bypass this degree to a higher one. In this case, there is no absolute degree of temperature for .this water. This is also the case with the objective reality that exists externally

If we measured its temperature at a certain moment, and found that, when the measurement has been affected by this reality's temperature, the temperature has reached, for example, ۹۰ [degrees centigrade], we would have attained a. truth by means

of experimentation. This truth is that the degree of the temperature of water at that specific moment is ۹۰ [degrees centigrade]. We say of it that it is a truth, because it is an idea about whose correspondence to reality -that is, the reality of temperature at a certain moment - we have been assured. It is natural that (p. ۱۹۸) the temperature of water does not stop at this degree. Rather, it keeps on rising, until it reaches the .degree of boiling

However', the truth that we have attained is the truth unchanged, in the sense that when we notice this particular moment at which we measured the temperature of water, we judge with all certainty that the temperature of water was at ۹۰ [degrees centigrade].

Therefore, even if the ۹۰-degree temperature that water reached is a temporary degree at a specific moment in time, and is quickly superseded by the temperature's rise to a higher degree, still the idea chat we had acquired by means of experimentation - this idea being that temperature at a certain moment was at ۹۰ degrees - is a sound idea and an absolute truth. Because of this, we can always assert its truth.

By 'always assert its truth', we do not mean that the ۹۰-degree [temperature] was always a fixed degree of the temperature of the water. The truth that we have acquired by experimentation does not touch upon the temperature of the water except at a certain moment.

Thus, when we describe

p: ۲۳۶

it as an absolute, and not as a temporal truth, we intend by this chat temperature at that particular moment has been fully determined at ۹۰ degrees. Thus, even if it were permissible that the temperature of water reaches, for example, ۱۰۰ [degrees centigrade] after that moment, still, it is not permissible that what we have known about the degree of temperature at that particular moment be false after it had been true.

If we know that the truth is the idea that corresponds to reality, and learn that if the idea corresponds to reality at a specific circumstance, it cannot after that become contrary to that reality at that specific circumstance; I say that if we know all of this, it becomes clearly evident that it is erroneous to apply the law of movement to truth. This is because movement affirms change in the truth and makes it always relative and restricted to the time of its specific stage of development. But we have learned

that truths do not change and are not temporal. Similarly, the development and wholeness of truth mean that by means of movement, the idea becomes more (intensely true. (p. ۱۹۴

Again, by movement, temperature rises to a higher degree, even though truth differs from temperature. Temperature may become more intense and stronger; but truth, as we have already learned, expresses the idea that corresponds to reality, and it is not possible for the correspondence of the idea really to become more intense and stronger, as

is the case with temperature. But it is possible for the human mind to uncover a new .side of that reality chat it had not known prior to that time

However, this is not a development of the truth that had been known in advance. Rather, it is a new truth that the mind adds to the previous truth. Thus, if we know, for example, that Marx was influenced by Hegelian logic, this knowledge would be the first truth we have about the relation of Marx to Hegelian thought. If after that, we study Marx's history and philosophy, we know that he was in opposition to Hegel's .idealism

We also know that he applied his dialectic in a material fashion to history, society and other intellectual relations between their two personalities. All of this is a new knowledge that reveals various aspects of reality, and not a growth or a development .of the first truth that we acquired at the beginning

The enthusiasm of the Marxist school to subjugate truth to the law of movement and .development is just to abolish absolute truths which metaphysical philosophy accepts

However, the Marxist school does not know that it abolishes its own doctrine by the enthusiasm for [upholding] this law. If movement is a general law governing truths, then it is impossible to affirm any absolute truth. Consequently, the law of movement .itself would fall short of being an absolute truth

It is curious that Marxism asserts the movement and change of truth in accordance with the

p: ٢٣٨

law of the dialectic, and considers this revelation the central point of the Marxist theory of knowledge. It ignores, however, the fact that this revelation itself is one of those truths (p. ١٩٥) whose movement and change Marxism accepts.

Thus, if this truth moves and changes in accordance with the dialectical method, as do all other truths, it must, therefore, involve a contradiction that will be dissolved by its development and change, as the dialectic makes inevitable. If, on the ocher hand, this crush were absolute and free from movement and change, this would be sufficient for rejecting the application of the dialectical laws and movement to [all] truths and knowledge, and would constitute a proof that truth does not submit to the principles of the dialectical movement.

The dialectic which is intended to govern human truths and knowledge involves a scandalous contradiction and a clear assertion for destroying itself in either case. If it is considered an absolute truth, its own rules would be violated, and it becomes clear that the dialectical movement is not in control of the sphere of truths. If it were in control of this sphere, there would not be a single absolute truth, even if this truth were the dialectic itself. If, on the other hand, it is considered a relative truth subject to development and change, then by virtue of its own internal contradictions, it will change. The dialectical method will disappear and its contradictory will become an established truth.

b. The Union of Truth and Falsity

In the Marxist texts

p: ٢٣٩

presented above, it was seen that Marxism finds fault with formal logic (as Marxism puts it) for accepting absolute opposition between falsity and truth, even though the

two can come together, since falsity and truth are two relative matters and since we .do not possess an absolute truth

The Marxist idea that asserts the union of truth and falsity is based on two ideas. On of them is the Marxist idea of the development and movement of truth. This idea .affirms that every truth is in a continuous movement and change

The other is the Marxist idea of the contradiction of movement. This idea affirms that movement is nothing but a series of (p. ۱۹۶) contradictions. Thus, the thing that moves at every moment is at a specific point, and not ac that specific point. Due to this, .Marxism considers movement as a refutation of the principle of identity

The result of these two ideas is that truth and falsity unite, and that there is no absolute opposition between them. This is because, since truth is in motion, and since motion means continuous contradiction, truth, therefore, is truth, and it is not so by .virtue of its moving contradictories

We are clear from the above about the extent of the falsity of the first idea of the movement and development of truth. We will discuss the second idea in detail when we take up the dialectic in a complete study of the second issue, the philosophical ,notion of the world. At that point

p: ۲۴۰

the error and ambiguity in the laws of the dialectic in general, and in its application to .the idea in particular, wilt become clearer

It is evident that the application of the laws of the dialectic of contradictions and development to ideas and truths in the alleged manner leads to the collapse of the secure value of all rational knowledge and judgements, regardless of their clarity and self-evidence. Even the logical judgements or the simple mathematical judgements lose their value, because they submit, by virtue of the contradictions that they involve .according to the dialectical view, to the laws of continuous development and change

Therefore, one cannot be sure of the truths that we now know, such as 'two plus two

equals four', and 'the part is smaller than the whole', [for] they change by virtue of the (dialectical contradictions, so that we know them in a different form.(١)

IV. Scientific Revisions and Absolute Truths

in criticizing the principle of absolute truth that asserts that absolute truth cannot come together with falsity by way of the revisions made in the scientific theories and :laws, Engels tells us

Let us illustrate this by the well-known Boyle's(٢) law which states that the volumes of gases are inversely proportionate to the pressure exerted on them - if the degree of .their temperature remains fixed

Regnault(٣) found that this law is not true in certain cases. If Renan were one of the realists, he would have reached the following conclusion: 'Since Boyle's law is susceptible to change, therefore, it is not

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Those attempts that are made in the name of knowledge, for the purpose of - ١ rejecting rational self-evident propositions, whether mathematical or logical, are curious indeed. This is in spite of the fact that knowledge cannot but rest on such propositions. In what follows, examples of such attempts will be given by Dr Nuri Ja'far. He mentions them in his book, Falsafat al-Tarbiya (Philosophy of Education), p. ۶۶: In light of what we have mentioned, we can say (p. ١٩٧) that all the laws of knowledge are relative. They operate in specific areas, beyond which they do not extend. What we have said is also true of the laws of mathematics and some of their expressions which, at first glance, appear as if they are self-evident matters that do not change by the change of time and space. Thus, for example, the sum of 'two plus two' does not always equal 'four'. Similarly, for example, if we add two volumes of alcohol to two volumes of water, the result will be less than four mixed volumes. The reason for this is that the parts of one of the two fluids differ from (the parts of) the other fluid in the intensity of solidity. Thus, at the point of mixing, the parts of the fluid that arc more solid, i.e. the part of water, penetrate through the relative gaps that

exist among the parts of the alcohol. The result is similar to the mixture of a quantity of oranges with a quantity of watermelon, where a part of the oranges penetrate through the gaps that exist in the watermelon. Further, the result of the addition of one gallon of water to one gallon of sulphuric acid is a frightening explosion. If this union occurs with scientific precision and in a manner in which the occurrence of the explosion is avoided, the result will still be less than two gallons of the mixture. However at some other time, two plus two equals two. If, for example, we mix two gases, the temperature of each of which being two degrees centigrade, the degree of the temperature of the mixture remains two. This text presents us with three mathematical formulae. First, if we add ٢ volumes of alcohol to ٢ volumes of water, the sum is less than ٤ volumes. This formula involves the following fallacy: in fact, we do not add ٢ volumes plus ٢ volumes; rather, we lose something in the addition. Hence, the loss appears in the result. This is because the volume of the alcohol is not constituted by its parts only. Instead, it is constituted by its parts and the relative gaps existing among its parts. Thus, if we prepare ٢ volumes of alcohol, these ٢ volumes will express parts, and gaps among those putts, and not parts only. When ٢ volumes of water are poured over the alcohol, and the parts of the water penetrate through the relative gaps that exist among the parts of the alcohol thus occupying such gaps – we would then lose these relative gaps that had enjoyed a portion of the volume of the alcohol. Therefore, we do not add ٢ volumes of alcohol to ٢ volumes of water. Instead, we add ٢ volumes of water plus the parts of ٢ volumes of alcohol. As for the relative gaps that were present among such parts, they are eliminated. It becomes clear that if we wish to be careful in positing this mathematical formula, we must say that the addition of ٢ complete volumes of water to ٢ volumes of alcohol (excluding the gaps that are among its parts) equals ٤ volumes (excluding those gaps themselves). The case of these volumes is not unlike thousands of natural analogs and examples that all people observe in their daily lives. What can we say about a cotton body whose length is t meter and a piece of iron whose length is also ١ meter? If (p. ١٩٨) we place one of these two bodies against the other, will the result be the length of ٢ meters? Further, if we place some soil whose height is ١ meter against some water with the same height, will the result be double that height? Of course not. Is it permissible to consider this as a proof for rejecting the mathematical axioms? Second, the addition

of ١ gallon of water plus ١ gallon of sulphuric acid does not produce ٢ gallons. Rather, it produces a terrifying explosion. This, too, is not incompatible with the mathematical axiom concerning the addition of numbers. The reason is that I plus ١ equals ٢ only if neither one of them nor both perish during the addition or mixing; otherwise, there would be no addition in the real sense between ١ plus ١. In this example, the two units - i.e., the ٢ gallons - were not present at the point of completing the process of addition, so that the result would be ٢ [gallons]. Third, the addition of two gases, the temperature of each of which is ٢ degrees centigrade, produces a mixture with the same degree of temperature, i.e. without multiplication. This is another kind of distortion, for the process added and mixed the two gases, and not the ٢ degrees of temperature. The ٢ degrees of temperature would have been added, if (each) degree of temperature is doubled in its subject. We have not added one temperature to another temperature to expect a higher degree of temperature. Rather, we have added and mixed something with a certain temperature to something else with a certain temperature. Thus, it becomes clear that any skepticism or rejection of the necessary rational self-evident propositions is indeed attributed to a kind of fallacy or to the lack of a good understanding of those self-evident propositions. This will become fully clear when we present the Marxist criticism which attempts to refute the principle of non-contradiction

Robert Boyle, British physicist and chemist (١۶٢٧-٩١). Boyle studied gases and - ٢ showed that the compressibility and expansibility of air is inversely proportionate to the pressure exerted. This came to be known as 'Boyle's law'. If pressure is increased ten times, for example, the volume of air is decreased ten times. Conversely, if pressure is decreased ten times, the volume expands ten times. His principal work is .The Skeptical Chemist

Henri Victor Regnault, French chemist and physicist (١٨١٠-٧٨). He is best known for -٣ his work on the properties of gases. In ١٨٣۵, he began a series of studies in organic chemistry on the halogen and other derivatives of unsaturated hydrocarbons. His work in physics was careful and accurate. He designed standard instruments for a large number of measurements. He made precise determination of the specific heat of many solids, liquids and gases. He studied the expansion of gases by heat, and proved that no two gases have the exact coefficient of expansion, as some had held

earlier. He showed that Boyle's law of elasticity of a perfect gas is only approximately true for real gases. Regnault's hydrometer, an instrument for measuring humidity, was of his own design. His principal work can be found in Memoires de l'Academie de Science, Vols. ۲۱ and ۲۳.

completely true. This means that it is not (p. ۱۹۹) at all a truth. Thus, it is a false law.'

If Renan followed this path, he would have committed a greater error than that committed in Boyle's law. The little truth that his criticism of this law involves would have been lost and buried in the midst of the sand of falsity.

In the last analysis, this would have led him to distort the sound truth that he had attained, and to transform it into a conclusion with clear errors, if compared with the conclusion reached by Boyle's law which appears as sound, in spite of the specific errors that attach to it.(۱)

This criticism may be summed up in [the statement] that if the metaphysical notion were correct in its assertion that truths are absolute and totally incompatible with falsity, then it would be necessary to reject every scientific law just because it is evident that it is in part not true and inapplicable in some cases.

Thus, according to the metaphysical method of thought, Boyle's law is either an absolute truth or a pure falsity. If in the experimental field, this law is shown to be untrue at times, this necessitates its being an absolute falsity having no truth at all; for truth cannot unite with falsity. Because of this, science loses the aspect of truth of this law.

According to the dialectical method, on the other hand, this relative falsity is not considered a proof that the law must

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۱- Did Duharnak al-Falsafa, p. ۱۵۳.

be completely dropped out, but that, at the same time, it is a relative truth. Indeed,

.truth and falsity unite

If Engels knew well the metaphysical theory of knowledge, and understood what it intends by 'absolute truth', he would not have criticized it in this way. Truth and falsity .do not unite in one truth, neither in Boyle's law, nor in any other scientific laws

The truth of Boyle's law is an absolute truth free from falsity, and what is false of this law is completely false. The scientific experiments, (p. ۲۰۰) which Renan carried out and which showed him that Boyle's law, for example, is not true when the pressure reaches the point at which gases are transformed into fluids, did not convert truth into .falsity

Rather, they divided the law into two parts. They clarified that one of these two parts is a pure falsity. Therefore, the union of falsity and truth is a nominal union and is not a .union in the real sense

Put clearly, every true scientific law involves truths equal to the number of the cases with which it deals and to which it is applicable. If experimentation shows its falsity in some of those cases and its truth in some other cases, this does not mean that truth is relative and that it unites with falsity. What this means is that the content of the law is applicable to reality in some cases, to the exclusion of some other cases. Thus, falsity has its place, and

p: ۲۴۳

in that place, it is a pure falsity. Truth also has another place, and in that place it is an .absolute truth

Metaphysical thought does not impose on the natural scientist a complete rejection of a law if it is proved that that law is untrue in some cases. The reason is that metaphysical thought considers every case as representing a proposition pertaining to that case. It is not necessary that a proposition that pertains to a specific case be .false if the proposition pertaining to another case is false

Instead of the childish attempts that Engels made to justify relative truth and its union

with falsity, he should have learned the difference between simple and composite propositions. He should have learned that a simple proposition is that which cannot be divided into two propositions, as in our statement, 'Plato died before Aristotle,' and that a composite proposition is that which is composed of a number of propositions, as when we say, 'Bodily particles expand by heat'. This statement is an assembly of propositions. We can express it in a number of propositions, thus saying, 'Iron .'expands by heat,' (p. ٢٠١) 'Gold expands by heat' and 'Lead expands by heat

Because a simple proposition is a single proposition, it cannot be true in one respect and false in another. Thus, the death of Plato before Aristotle is either true or it is false. But since a composite proposition is the meeting place of a number of propositions, it is, therefore, possible for one

.aspect of it to be true and for another to be false

If, for example, we assume that iron expands by heat, but not gold, then the general natural law, i.e. chat bodily particles expand by heat, is considered true in one respect and false in another. But this does not mean that truth and falsity unite, thus rendering the same proposition both true and false. Rather, falsity is in the proposition, for example: 'Iron expands by heat.' Therefore, neither falsity is true nor .truth is false

In returning to the developmental movement of truth and knowledge as a part of the dialectic for whose study we reserve the second chapter of the following investigation, the philosophical potion of the world, we will discuss the Marxist reasoning and forms of demonstration for the development of truth and knowledge, .as well as the extent of its weakness and fallacy

In particular, we will discuss the Marxist attempt at considering the natural sciences in their remarkable development throughout history, their multiple activities, and their powerful leaps as in agreement with the developmental movement of truth and knowledge, even though the development of the sciences, in the philosophical sense

intended by Marxism, has no connection to the development of truth and knowledge .throughout the long history of these sciences

The sciences develop, not in the sense that their truths grow and become whole, but in the sense that their truths are increased and multiplied [in number] and their errors decreased and reduced. The clarification of this

.matter will be reserved to a future discussion in the second investigation

The conclusion we draw from this study is the following. (p. ۲۰۲) First, truth is absolute and unprogressive, even though the objective reality of nature continuously develops and moves. Second, truth is fully incompatible with falsity. A single simple proposition .cannot be both true and false

Third, the application of the dialectic to truth and knowledge imposes on us complete skepticism concerning every truth, as long as truth is in continuous change and development. Indeed, the dialectic also sentences itself to death and change, since it itself is one of those truths that must change in accordance with its specific .developmental method

V. The Marxist Relapse into Subjectivism

Finally, we must point out that in spite of the fact that Marxism insists on rejecting subjective relativism by raising [itself above this form of subjectivism], emphasizing the objective character of its own relativism, and [asserting] that Marxism is a relativism that accompanies the progressive reality and reflects the relativity of this .reality

In spite-of all of this, Marxism once again regresses and falls in the grip of subjective relativism when it links knowledge to the class element and asserts that it is impossible that philosophy, for example, can rid itself of the class and political element. This led Morris Cornforth(۱) to say the following: 'Philosophy had always expressed, and cannot but express a class point of view.'(۲) Again, Chiang(۳) says:

'Lenin has struggled with firmness and determination against the objective tendency (in theory.'(4)

It is clear that

p: ۲۴۶

1- Text: Kunfurt. However, we assume this is the British professor, Morris Cornforth.
2- Al-Maddiyya ad-Dialaktikiyya, p. ۳۲.
3- Chiang. We are unable to identify this figure.
4- Ar-Ruh al-Hizbiyya fi al-Falsafa wal-'Ulum, p. ۷۰.

this Marxist tendency links knowledge to subjectivity. (p. ۲۰۸) However, this is class subjectivity, and not individual subjectivity, as the subjective relativists had asserted. Consequently, truth becomes the correspondence of the thinker's idea to class interests. This is because no thinker can know reality except from the perspective of these interests. In light of this, no one can secure the truth of any philosophical or scientific idea, in the sense of the correspondence of that idea to objective reality. As long as Marxism upholds the necessity of the class character, it cannot offer us its notion of the universe and society as an expression corresponding to reality. Rather, all that it can assert is that this notion reflects the aspects of reality that agree with (the interests of the working class.(1)

Author's Notes to Part One, Chapter Two

[۵۰] Ivan Petrovich Pavlov, Russian physiologist (۱۸۴۹-۱۹۳۶). He was awarded the Nobel Prize in medicine and physiology in ۱۹۰۴. Pavlov's famous experiment ran as follows. h was observed that a hungry dog salivates any time he is presented with food. This is an unconditioned or natural reflexive act. A bell was made to ring anytime this dog was presented with food. Eventually, the dog began to salivate whenever the bell rang, even if he did not see the food. This is a conditioned reflexive act. That is, the sound of the bell was associated with the sight of the food, and hence brought about the same response that the sight of the food

.For clarification, see the book Our Economics, by the author, pp. ۹۳-۱۰۰ -۱

produced. The result of this experiment was an important contribution to physiological psychology. It led to the theory that much behaviorial development is .the result of conditioned reflexive acts

Part Two: The Philosophical Notion concerning the World

Chapter One: Preliminary Notes

point

Ever since mankind attempted to determine its relations and links to the objective world, the issue of forming a general philosophical notion of the world has occupied a central position in the human mind. In this investigation of ours, we do not intend to write the history of this issue in its philosophical, religious and scientific progress, as .well as its long development throughout history

Rather, our purpose is to present the basic notions in the modern philosophical field, in order for us to determine the following: (۱) our position with regard to such notions; and (۲) the notion, in the light of which our general view must be formed and on whose .basis our principle in life must be based

This notion can be attributed to two issues: one of them is the issue of idealism and .realism; and the ocher the issue of materialism and theology

In the former issue, the question is presented in the following way: 'Are the beings of which the world is constituted realities that exist independently of consciousness and knowledge; or are they nothing but forms of our thought and conception in the sense that reality is thought or knowledge, and, in the last analysis, everything is attributed (to the mental conceptions?' Thus, if we eliminate consciousness or the 'I', (p. ۲۰۸

.then the whole reality will be removed

These are two estimations of the issue. The answer, according to the former estimation, recapitulates the philosophy of realism or the realistic notion of the world. The answer, according to the latter estimation, is that which offers the idealistic .notion of the world

In the second issue, the question is presented in light of the philosophy of realism, as follows: 'If we accept an objective reality of the world, do we stop with objectivity ac the limit of sensible matter, which would thus be the common cause of all the phenomena of existence and being, including the phenomena of consciousness and knowledge; or do we seep beyond it to a further cause, an eternal and an infinite cause, as the primary cause of what we know of the world, including both its spiritual '?and its material realms

Thus, in the philosophical field, there are two notions of realism. One of them considers matter as the primary foundation of existence; this is the materialistic realistic notion. The other extends beyond matter to a cause above both spirit and .nature; this is the theological realistic notion

Therefore, there are three notions of the world at hand: the idealistic notion, the materialistic realistic notion and the theological realistic notion. Idealism may be expressed by spiritualism, since [it] considers the spirit or consciousness as the .primary foundation of existence

Correction of Errors .۱

In light of this, we must correct a number of errors committed by some modern writers. The first is the attempt to consider

the conflict between theology and materialism as an expression of the opposition between idealism and realism. They do not distinguish between the two issues that .we have presented above

Thus, they claim that the philosophical notion of the world is one of two kinds: either the idealistic notion or (p. ٢٠٩) the materialistic notion. Therefore, the explanation of the world does not admit of more than two points of view. If you explain the world in a purely conceptual manner, and believe that conception or the 'I' is the primary source .[of reality], then you are an idealist

If, on the ocher hand, you wish to reject idealism and subjectivism, and accept a reality independent of the 'I', then you must adopt the materialistic notion of the world, and believe that matter is the primary principle, and that thought and .consciousness are nothing but reflections of it and certain levels of its development

But, as we have learned, this does not at all agree with the facts. Realism is not limited to the materialistic notion. Similarly, idealism or subjectivism is not the only thing that opposes and conflicts with the philosophical materialistic notion. Indeed, there is another notion of realism – namely, theological realism that accepts an external reality of the world and nature. Both spirit and matter, according to this notion, are .attributed to a cause beyond the world and nature

The second is the accusation made by some writers against the theological notion – namely, that it freezes the scientific principle

p: ٢٥٠

in the natural sphere, and eliminates the natural laws and decrees that science uncovers and that are made more evident day by day. According to the claims of such writers, the theological notion links every phenomenon and every being to the .theological principle

This accusation has played an effective role in the materialistic philosophy, where the idea of God posits an intelligible cause of the natural phenomena and events that people observe, and attempts to justify the existence of such phenomena and events. With this, the necessity of such phenomena and events is completely eliminated if we can discover by science and the scientific experiments the real causes, as well as the laws of the universe that govern the world, and in accordance with which the

.phenomena and vents are produced

The malicious role that the church played in fighting the scientific progress and opposing the natural mysteries and laws disclosed by science at the beginning of the (scientific renaissance in Europe aided in solidifying this accusation. (p. ۲۱۰

In fact, the theological notion of the world does not mean dispensing with natural causes or rebelling against any one of the sound scientific truths. Rather, it is the notion that considers God as a cause beyond [nature]. It imposes on the chain of agents and causes an ascent to a power above nature and matter. With this, .opposition between it and any scientific truth is completely removed

The reason for this is that it gives science the widest opportunity for discovering the mysteries

p: ۲۵۱

and order o£ nature. At the same time, in the last analysis, it retains for itself the theological explanation which is the positing of a higher cause in a principle above nature and matter. Hence, the theological issue is not as its opponents wish to claim – namely, an issue concerning an invisible hand that sprinkles water in the atmosphere, that conceals the sun from us, or that acts as an obstacle between us and the moon, .thus creating rain, a sun eclipse, or a moon eclipse

If science reveals the causes of rain and the factors leading to its evaporation; and further, if science also reveals the causes of the sun's eclipse, and [if] we know that the celestial spheres are not equidistant from the earth, that the moon is closer to them than to the sun, and that it happens that the moon passes between the earth and the sun, thus concealing the sun's light from us; again; if science reveals the cause of the moon's eclipse, which is the passing of the moon in the shadow of the earth – this shadow extends behind the earth for around ۹۰۰,۰۰۰ miles – I say that if this information is available to a human being, then those materialists will imagine that the theological issue will no longer have a subject, and the invisible hand, which conceals from us the sun or the moon, is substituted for by the natural causes given

.by science

However, this is only due to the misunderstanding

p: ۲۵۲

of the theological issue, and to the undifferentiation of the place of the theological .cause in the chain of causes

The third is the spiritual character that has dominated both idealism and theology, so much so that spiritualism in the theological notion began to appear as having the same meaning as that of the idealistic notion. This caused a number of ambiguities. The reason is that spirituality can be considered as an attribute of each of (p. ۲۱۱) the .two notions

However, we do not at all permit the negligence of the distinction between the two forms of spiritualism. Rather, we must know that by 'spiritualism', in the idealistic sense, one intends the realm which is opposite the sensible material realm that is, the .'realm of consciousness, knowledge and the 'I

Thus, the idealistic notion is spiritual, to the sense that it explains every being and every existent in terms of this realm, and attributes every truth and every reality to it. According to the claims of idealism, the material realm is attributed to a spiritual .realm

As for 'spiritualism' in the theological sense, or in the theological doctrine, it is a method of viewing reality as a whole, and not as a specific realm opposite the material realm. Hence, the theology that asserts a supernatural, immaterial cause also asserts a link between all that exists in the general realm - be that spiritual or .material - and the supernatural cause

It believes that this link is one in whose light the

p: ۲۵۳

human practical- and social position regarding all things must be determined.

Spiritualism in the theological sense is a method for comprehending reality. It is equally applicable to the material realm and to the spiritual realm in the idealistic .sense

We can conclude from the previous presentation that the philosophical notions of the world are three. We have studied in the theory of knowledge the idealistic notion, since it is very much related to the theory of knowledge. We have also discussed its errors. Let us, therefore, take up in this investigation the study of the other two .notions, the materialistic and the theological

In the materialistic notion, there are two tendencies: the instrumental or mechanical .(tendency and the dialectical or contradiction tendency (that is, dynamic materialism

Clarification of a Number of Points concerning These Two Notions .۲

Before we discuss the materialistic notion, including both of its tendencies, we must seek clarification about a number of points concerning the theological and the (materialistic notions. This will be done in the following questions. (p. ۲۱۲

The first question is this: 'What is the basic feature that distinguishes each of the materialistic tendencies (the philosophical materialistic school) and the theological tendency (the theological school) from one another; what is the main difference (between them) that makes them two conflicting tendencies and two opposite '?schools

Casting one glance at these two schools determines for us a clear answer to this question: namely, that the basic distinguishing feature of the materialistic school in philosophy is negation or denial of what appears to be above the capacity of the experimental

p: ۲۵۴

sciences. Thus, in the scientific field - that is, in the positive aspects of science that experimentation demonstrates - there is not something theological and something .material

Whether a philosopher is a theologian or a materialist, he accepts the positive aspect of science. From the point of view of science, the theologian and the materialist admit, for example, that radium produces a power of radiation as a result of an internal division, that water is composed of oxygen and hydrogen, and that the element of hydrogen has the lightest atomic weight of all elements.

They both also accept the other positive truths that appear on the scientific level. Hence, with regard to the scientific position, there is no theological philosopher and no materialist philosopher. Rather, these two sorts of philosophies exist, and materialism opposes theology when the issue of the existence of the beyond is presented. The theologian accepts a kind of existence free from matter that is, beyond the experimental field, its phenomena, and its powers.

The materialist, on the other hand, denies this, and limits existence to the specific experimental field. He considers the natural causes, which are revealed by experiments and touched by the hand of science, as the primary causes of existence, and nature as the only expression of this existence; whereas the theological tendency affirms that the human spirit or the 'I' is an immaterial subject, and that knowledge and thought are phenomena independent of nature and matter.

The materialist denies this, claiming that, in his

analysis of the human body and in his observation of the operations of the nervous system, he has not seen anything outside the limits of nature and matter, as the theologians claim. (p. ۲۱۳)

Further, the theological tendency asserts that the developments and movements that are revealed by science - be they mechanical movements subject to an external material cause, or natural movements not produced by experimentation from specific material causes - are, in the last analysis, attributable to an external cause beyond the fence of nature and matter.

The materialist opposes this, claiming that the mechanical movement as well as the natural movement are not linked to an immaterial cause, and that the natural movement is dynamic. It is self-sufficient, since the immaterial cause chat the .theologians have accepted does not appear in the experimental field

Thus, it becomes fully clear that the opposition between theology and materialism is not with regard to scientific truths. The theologian, like the materialist, admits all the scientific truths that sound experiments make clear about the human body, the .physiology of its organs, and the natural development and movement

The theologian just adds and admits other truths. He demonstrates the existence of an immaterial spiritual side of human beings other than that which is exhibited by them in the experimental field. He also demonstrates a non-sensible, primary, .immaterial cause of the natural and mechanical movements

Since we have learned that the scientific field does not involve what is theological and what is materialistic, we know that

p: ۲۵۶

the philosophical structure of materialism - since it is a school opposed to the school of theology - is based solely on the negation of abstract truths, as well as on the denial of existence beyond the limits of nature and matter, and not on positive .scientific truths

The second question is this: 'If compatibility between theology and materialism is the compatibility between affirmation and negation, then which of the two schools is '?responsible for giving evidence and proof for its own affirmative or negative position

It may appeal to some materialists to rid themselves of the responsibility for giving proof, and to consider the theologian responsible for giving evidence for his claim, because (p. ۲۱۴) the theologian is the one who has the affirmative position -that is, the one claiming existence [beyond nature]. That is why the theologian must justify his .position and demonstrate the existence of what he claims

The truth though, is that each of the two is responsible for offering evidence and reasons for his own tendency. Thus, as the theologian must demonstrate affirmation; so also is the materialist responsible for providing evidence for the negation, since he does not make the metaphysical proposition the subject of doubt. Instead, he denies .it without restriction. But absolute denial, like absolute affirmation, is in need of proof

Therefore, when the materialist claims that the immaterial cause does not exist, he implies in this claim that he has known the whole existence, and has not found in it room for an immaterial

p: ۲۵۷

cause. He must, therefore, advance a proof in support of this general knowledge, and .a justification of the absolute negation

Here we ask again: 'What is the nature of the evidence that the theologian or the materialist may offer in this area?' Our answer is that the evidence for affirmation or .for denial must be reason, and not direct sense experience

This is contrary to the materialist view that usually considers sense experience as evidence for its own notion - claiming that the theological notion or the metaphysical propositions cannot in general be affirmed by sense experience, and that sense experience rejects those claims, since it analyzes human beings and nature and .shows that there are no immaterial things in them

If materialism is correct in its claim -namely, that sense experience and scientific truths do not constitute a proof for the theological tendency - then neither can they be a proof for absolute negation that determines the materialistic tendency. For we have already learned that the various kinds of scientific truths are not the subject of .disputation between theology and materialism

Rather, the disputation is concerned with the philosophical interpretation of those truths: the existence of a superior cause beyond the limits of sense experience. It is clear that sense experience cannot be considered as a proof for the negation of a

.truth outside its own limits

Thus, if the natural scientist does not find (p. ٢١٥) an immaterial cause in his laboratory, this will not be anything other than

a proof for the non-existence of such a cause in the empirical realm. As for negating the existence of such a cause in a realm above that of sense experience, this is .something that cannot be inferred from sense experience itself

In this clarification, we have asserted two things. First, materialism is in need of proving the negative aspect that distinguishes it from theology, as metaphysics is in need of proving the affirmation and positiveness. And second, materialism is a .philosophical tendency, as is theology

We do not have scientific or experimental materialism; for science, as we have learned, does not affirm the materialistic notion of the world in order chat materialism be scientific. Rather, all the truths and secrets that science discloses about the sphere .of nature leave room for the assumption of a cause above matter

Scientific experimentation cannot prove, for example, that matter is not created by an immaterial cause, or that the forms of movement and the kinds of development which science has discovered in the various aspects of nature are self-sufficient and not produced by a cause above the limits and sphere of experimentation. The same is .true of every scientific truth

Therefore, the proof in support of materialism cannot be based on scientific truths or direct sense experience. Rather, it is formulated in a philosophical interpretation of .those truths and experiences, precisely as is the proof in support of theology

Let us take development as an example of this. Science proves the existence of natural development

in a number of fields. It is possible to posit two philosophical interpretations of this kind of development. One of them is that it proceeds from the heart of a thing, and is the result of a conflict assumed among contradictories in that thing. This is the .interpretation of dialectical materialism

The other is that it is the product of an immaterial superior cause. The progressive nature does not involve contradictories within itself. Rather, it involves the possibility of development. It is that (p. ۲۱۶) immaterial superior cause that provides this possibility with actual existence. This is the interpretation of the theological .philosophy

We notice with clarity that the scientific notion is just (the assertion of] the existence of natural development. As for those two notions of movement, they are two philosophical notions, the soundness of one of which and the erroneousness of the .other is not something about which one can be sure from direct sense experience

The third question is as follows: 'If scientific experimentation is not sufficient by itself for demonstrating the theological and the materialistic notions alike, then is it possible for the human mind to find evidence for any of the two notions, since both of them lie outside the realm of experimentation, or must the mind yield to skepticism, to freeze '?the theological and materialistic issue, and to limit itself to the fruitful field of science

The answer is that human intellectual capacity is sufficient for studying this issue and for commencing with respect to it

p: ۲۶۰

from experimentation itself, not by considering experimentation as a direct proof for the notion which we form about the world, but as a starting point. Thus, the proper philosophical notion of the world - the theological notion - will be posited by the independent rational information in light of the interpretation of experiments and the .experimental phenomena

No doubt the reader remembers our study in the first investigation concerning the

theory of knowledge of the rational doctrine, and how we demonstrated the presence of independent rational knowledge in a way that shows that the addition of rational knowledge to sense experience is something necessary not only with respect to our .philosophical issue but also with respect to all scientific issues

There is no scientific theory that rests on a purely empirical basis. Rather, it rests on the basis of sense experience and in light of independent rational knowledge. Therefore, our philosophical issue that investigates the supernatural world does not differ from any scientific issue that investigates one of the natural laws, or that reveals some natural powers (p. ۲۱۷) or secrets. In all of this, sense experience is the point of departure. But in spite of that, sense experience is in need of a rational .explanation if a philosophical or a scientific truth is to be inferred from it

From these points, we draw the following conclusions. First, the materialistic school differs from the theological school in a negative aspect that is, in the denial of that .which lies beyond the empirical field

p: ۲۶۱

Second, materialism is responsible for providing evidence for the negation, as .theology must show evidence for the affirmation

Third, sense experience cannot ۶e considered a proof for the negation, since the non-existence of a superior cause in the empirical realm does not prove the non-existence of that cause in a superior realm not touched by direct sense experience. Fourth, the method adopted by the theological school in demonstrating its theological notion is the same method by means of which we prove scientifically all the scientific truths .and laws

The Dialectical Tendency of the Materialistic Notion .۳

We have said that there are two tendencies in materialism. One of them is the mechanical, instrumental tendency, and the other is the dialectical tendency. We have already touched upon the former tendency briefly in the second chapter of the theory of knowledge, when we took up in our study and scrutiny the physical idealism which

.was established on the ruins of mechanical materialism

The latter tendency of materialism, which explains the world in a materialistic fashion according to the laws of dialectics, is the tendency that was adopted by the Marxist school. Thus, this school established (p. ٢١٨) its materialistic notion of the world on the basis of the tendency under consideration. We quote from Stalin:(١)

The Marxist materialism proceeds from the principle which asserts that the world is naturally material, that the numerous events of the world are various phenomena of the moving matter, that the mutual relations among events and the mutual adaptation of these events to one another are, according to

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١ - Joseph Stalin, (١٨٧٩-١٩۵٣). He was a Marxist theoretician, apolitical and a military leader. He was born in Soviet Georgia to a modest family. His father was a shoemaker. At nineteen years of age, he joined the revolutionary underground. In ١٩١٧, he became the editor-in-chief of Pravda, and in ١٩٢٢, he was appointed secretary general of the Communist Party, and Lenin's successor. In ١٩۴٢, he became commander-in-chief, and led the war against Germany in ١٩۴٣.

the dialectical method, necessary laws for the development of the moving matter, and finally, that the world develops in accordance with the laws of the movements of matter and has no need of any universal mind.(١)

The materialistic notion considers matter or existence as the central point of the Marxist philosophy, because this point determines the Marxist view regarding life, and constructs for it a specific understanding of reality and its values. Without this point, it would not be possible to establish the purely material grounds of society and life. It has imposed on the Marxist doctrine a specific progression of thought and required it .to establish its various philosophical aspects in the interest of this point

In order for Marxism to have the right to determine the central point once and for all, it chose this point to be one of certainty, as we have learned in the theory of

knowledge. It declared that human beings have the cognitive capacities that enable them to speak with certainty about a specific philosophy of life and to unravel the innermost secrets of existence and the world. It rejected the doctrine of absolute skepticism and even frozen subjectivism. By doing so, it attempted to give the main (axis - the materialistic notion - a decisive quality. (p. ٢١٩

Subsequently, it put forth a general criterion of knowledge and of the truth of sense experience. It considered necessary rational knowledge as improbable, and denied the rational logic which is independent of sense experience. All of

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.Al-Madda ad-Dialaktikyya, p. ٢٠ -١

this was for the purpose of avoiding the elimination of the possibility of the central point and the limitation of the human capacity by rational logic, particularly in the .empirical field

At this stage, Marxism faced a new problem - namely, if the human ideational criterion is the senses and the sense experience, then the information that people acquire by means of the senses and the sense experience must always be true and must be considered as a primary criterion for weighing ideas and knowledge. Now, are the scientific empirical conclusions indeed so? Further, is the truth of the theories ?which are established on the basis of sense experience always secure

Marxism falls between two dangers. If it admits that the information which is based on the ground of sense experience is not free from error, then sense experience falls short of being a primary criterion of truth and knowledge. if, on the other hand, the Marxists claim chat the theory which is derived from sense experience and application is above error and ambiguity, then they clash with the reality which no one can deny: the reality that many scientific theories, or many of the laws that people have attained by way of studying the sensible phenomena have proved to be false and not in agreement with reality. Thus, they fell from the scientific throne that they had been .mounting for hundreds of years

If the scientific or empirical notions should be false, and [if] rational logic is eliminated, then how can one

p: ۲۶۴

declare a philosophy of certitude, or establish a school whose ideas are characterized ?by decisiveness

Marxism has insisted on erecting sense experience as the highest criterion. It rid itself of this difficulty by positing the law of movement and development of the sciences and ideas due to [its consideration of] the mind as a part of nature. By virtue of this, the mind realizes the natural laws (p. ۲۲۰) in full. Thus, it develops and grows as nature .does

The scientific development does not mean the elimination of the previously mentioned scientific notion. Rather, it expresses an integral movement of truth and knowledge. Truth and knowledge are truth and knowledge, but they grow, move and .ascend continuously

Thus, all the self-evident propositions and truths are abolished; for all thought moves along the path of development and change. Hence, there is never a fixed truth in the realm of thought, nor can one be certain of the self-evident propositions that we now know, such as our knowledge of the following: 'The whole is greater than the part,' and 'Two plus two equals four'. This knowledge acquires another form in its .developmental movement - thus, we know the truth at that point in another manner

Since the movement that Marxism posited as the law of thought and of nature in general does not proceed other than from a power or a cause, and (since), according to Marxism, there is no reality in the world other than matter, it states that movement is the result of

p: ۲۶۵

the contradictions of the internal content of matter, and that these contradictions are at war with one another, thus causing matter and its development. For this reason,

Marxism cancelled the principle of non-contradiction. It took dialectics as a method of understanding the world, and placed its materialistic notion within the scope of this .method

With this, it became clear that all the philosophical aspects of dialectical materialism are linked to the central point- that is, to the materialistic notion - and are formed for .the purpose of establishing and preserving this point

Eliminating the self-evident propositions and making them subject to change, or accepting contradiction and considering it as a general natural law, as well as reaching the other similar strange conclusions chat Marxism drew, is nothing but an inevitable progression of the advance that began from the Marxist materialistic .notion, and a justification of this advance in the philosophical field

Chapter Two: Dialectics or Disputation

point

In classical logic, 'disputation' meant a specific method of discussion and' a certain manner of debate in which contradictory ideas and opposite points of view are presented. Every one of such points of view attempts to show the weakness and falsity of its opposite, in light of the knowledge already admitted and the propositions .already acknowledged

By virtue of this, conflict between negation and affirmation develops in the field of discussion and disputation, until a conclusion is reached in which one of the points of view at odds is asserted, or a new point of view reconciling all views evolves from

the intellectual struggle between the contradictories, after casting their contradiction .aside and showing the weakness of every one of them

However, disputation in the new dialectic or the new disputation is no longer a method of discussion and a certain manner of exchanging opinions. Instead, it has become a method of explaining reality and a general law of the universe applicable to

.the various realities and kinds of existence

Thus, contradiction does not only lie between opinions and points of view. Rather, it is fixed in the heart of every reality and truth. Therefore, there is no proposition that (does not involve in itself its own contradiction and negation. (p. ۲۲۲

Hegel was the first to establish a complete logic on the basis of this [notion of dialectics]. Thus, the dialectical contradiction was the central point in his logic and the main principle on which a new understanding of the world is based and by means of which a new theory about the world is constructed - a theory that is completely different from the classical theory that mankind had adopted ever since they were .made to know and to think

Hegel was not the first to formulate the principles of the dialectic. These principles are deeply rooted in a number of ideas that had appeared intermittently on the stage of .human thought

However, these principles were not formulated in light of a complete logic which is clear in its explanation and view, and which is determined in its designs and rules, except

p: ۲۶۷

at the hand of Hegel who constructed his whole idealistic philosophy on the basis of this kind of dialectic. He considered it a sufficient explanation of society, history, the nation and all aspects of life. After him, Marx adopted this dialectic and cast his .materialistic philosophy in a purely dialectical form

According to the claims of the dialecticians, the new dialectic is a law of thought and reality alike. That is why it is a method of thought as well as a principle on which the .existence and development of reality is based

:We are told the following by Lenin

If there are some contradictions among people's ideas, it is because the reality that

our minds reflect involves contradictions. The dialectic of things produces the dialectic (of ideas, and not vice versa.(1) (p. ٢٢٣

:Marx also says

The movement of thought is nothing but a reflection of the movement of reality, (transmitted to, and transformed in the human mind.(٢

Hegelian logic, with the dialectic and contradiction on which it rests, is considered at the exact opposite end of the classical logic or the general human logic. This is because general logic accepts the principle of noncontradiction, and considers it a primary principle on the basis of which every knowledge must be based, and a necessary principle by which everything in the realm of existence abides, and without .which no truth can be proved

Hegelian logic, on the ocher hand, completely rejects the principle of noncontradiction. Further, it is not satisfied with emphasizing the possibility of .contradiction

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.Al-Maddiyya wal-Mithaliyya fi al-Falsafa, p. ٨٣ -١

.Ibid -٢

Rather, it views contradiction, instead of its opposite, as the primary principle for all true knowledge of the world, and the general law that explains the whole universe by .means of a group of contradictions

Every proposition concerning the world is considered as an affirmation; while at the same time, it forms its own negation. Affirmation and negation are synthesized in a new affirmation. Thus, the contradictory method of dialectics or disputation that governs the world involves three stages, called the thesis, the antithesis, and the synthesis - that is, the affirmation, the negation and the negation of the negation. In accordance with the requirements of this method of disputation, everything unites

with its contradictory. It is at the same time affirmed and denied, existent and .nonexistent

Hegelian logic claims that, by the disputation it attributes to existence, it has abolished the main points of classical logic. According to Hegelian logic, these points are the following. (p. ۲۲۴) The first is the principle of noncontradiction, which asserts that a thing cannot be simultaneously qualified by a certain attribute and by its .contradictory

The second is the principle of identity. This is the principle that states that every quiddity is what it is by necessity; that is, a thing cannot be stripped of itself. The third is the principle of rest and frozenness in nature. This principle asserts the negativity .and fixedness of nature, and denies that the realm of matter is dynamic

In the new logic, there is no room for the

first principle, since everything pertaining to the reality of this logic is based on contradiction. If contradiction prevails as a general law, it is then also natural to drop the other principle of classical logic, the principle of non-contradiction. Everything loses its identity exactly at the moment of the affirmation, since it is in a continuous .becoming

As long as contradiction is the main foundation, it will not be surprising that truth always means two contradictory things. Since this kind of contradiction, which lies at the heart of every reality, produces a continuous conflict in all things, and [since] 'conflict' means movement and progression, therefore nature is continuously active and developing, constantly moving forward and becoming. These are the blows that dialectical logic claims to have directed against general human logic and the familiar .notion of the world, on which metaphysics rested for thousands of years

The new method of understanding existence can be summed up in the assumption of a primary proposition that it views as a fundamental. Later, this fundamental converts

to its contradictory by virtue of the conflict among the contradictories of the internal content. After that, the two contradictories are synthesized in a unity. This unity, in turn, becomes a fundamental and a new point of departure. Thus, this tri-progression is repeated (p. ۲۲۵) endlessly and without limit. It moves with existence and extends as .far as the phenomena and events of existence extend

Hegel began with the general notions and categories, applying the dialectic to them, and

p: ۲۷۰

inferring them in a disputational method based on the contradiction represented in the thesis, antithesis and synthesis. His bestknown and first triad in this area is that which begins from the simplest and most primary of chose notions: the notion of .existence

Thus, existence is. This is the affirmation or thesis. However, it is not a thing, because it can be everything. The circle, for example, is. The same is true of the square, the .white, the black, the plant, and the stone. Existence, therefore, is nothing determined

Consequently, it is not. This is the antithesis which the thesis produces. It is in this way that contradiction occurs in the notion of existence. This contradiction is resolved in the synthesis of existence and non-existence which produces an existent that does not fully exist, that is, becoming and movement. Hence, the conclusion to be drawn is .that real existence is becoming

We gave this example in order to show how the master of modern disputation moves in inferring the general notions from the more general to the more particular and .from the more empty and weaker to the richer and closer to the external reality

According to him, this kind of dialectic in inferring notions is nothing other than a reflection of the dialectic of actual things in themselves. Thus, if a certain idea causes an idea which is its opposite, that would be because the reality that the former idea .represents requires an opposite reality

A short glance at the thesis, the antithesis

and the synthesis in the issue of existence, which is the best-known Hegelian triad, indicates clearly that Hegel did not really understand the principle of non-contradiction when he cancelled it and replaced it by the principle of contradiction. Further, I do not know (p. ۲۲۶) how Hegel can explain to us contradiction, or negation .and affirmation that unite in the notion of existence

No doubt, the notion of existence is a general notion. That is why it can be everything - it can be a plant or an inorganic thing, a white thing or a black thing, a circle or a square. But does this mean that these contradictories and opposite things unite in the notion of existence, such that it becomes the meeting point for contradictories and .opposites? Of course not

The union of opposite things in one subject is one thing, while the possibility of the applicability of one notion to these things is something else. Existence is a notion that does not involve anything black or white, plant-like or inorganic. Rather, it can be (either this or that. But it is not this and that at the same time.(۱

The basic points are four: the movement of development, the contradictions of (development, the leaps of development, and the assertion of general linkage. (p. ۲۲۷

The Movement of Development .۱

Stalin declares that

Contrary to metaphysics, the dialectic does not consider nature as a state of rest, frozenness, stagnation, and stability. Rather, it considers it as a state of constant .motion, change, and uninterrupted renewal and development

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Add to this that the alleged contradiction in the triad of existence rests on another -۱

confusion between the idea of a thing and the objective reality of that thing. The notion of existence is nothing but the idea of existence in our minds. It is other than the objective reality of existence. If we distinguish between the idea of existence and the reality of existence, the contradiction will disappear. The reality of existence is determined and limited. One cannot at all strip it from the attribute of existence. Our idea of existence, on the other hand, is not a real existence. Rather, it is a mental .notion taken from the real existence

In nature, there is always something generating and developing, and something disintegrating and perishing. That is why we wish [to establish] the dialectical method, so that one would not be satisfied with viewing events from the perspective of their relations to one another and from the perspective of their mutual adaptation to one another, but also from the perspective of their motion, change, development, appearance, and disappearance.(۱)

:Further, Engels says

We must not view the world as if is were composed of complete things. Rather, we must view it as if it were composed in our minds. This passage (to the mental composition) indicates a continuous change of becoming and disintegration, where at last the light of progressive growth shines, in spite of all the apparent coincidence and temporary relapses.(۲)

Thus, everything is subject to the laws of development and becoming. There is no limit at which this development or becoming ceases. (p. ۲۲۸) For motion is the .unlimited preoccupation of the whole existence

The dialecticians claim that they alone consider nature in a constant state of motion and change. Further, they reproach metaphysical logic, or the traditional method of thinking for its procedure of studying and comprehending things, as this logic or .method supposes nature in a state of absolute rest and frozenness

Therefore, it does not reflect nature in its moving and progressive reality. Thus, according to the dialecticians, the difference between the dialectical logic, which

attributes to nature a constant motion and a continuous progression, and the formal logic

p: ۲۷۳

.Al-Maddiyya ad-Dialaktikiyya wal-Maddiyya at-Tarikhiyya, p. ۷ -۱
.Hadhih Hiya ad-Dialaktikiyya, pp. ۹۷-۹۸ -۲

is like the difference between two persons each of whom wishes to explore the .innermost structure of a living being in its various roles

Each of them carries out his experiments on this being. Then one of them stops to observe the continuous development and motion of this being and to study this being in light of its whole development; whereas the other is satisfied with the first experiment, thinking that this being is static in its structure and stable in its identity and reality. Nature as a whole is similar to this living being, [whether as] a plant or as an animal, in development and growth. Thus, the mind does not accompany nature .except if is resembles nature in its motion and development

In fact, the law of dialectical development, which modern disputation considers one of its own basic features, is not something new in human thought. Rather, what is new is .its dialectical character of which it must be stripped, as we will know later

In its proper limits, this law is in agreement with the general logic and has no relation to dialectics, nor was it discovered by dialectics. Thus, in order for us to accept this law and to know that metaphysics realized is before [the dialectic], we need only to strip this law of the form of contradiction and the ground of disputation on which the .dialectic bases it

According to the claims of the dialectician, the metaphysician believes that nature is frozen, characterized by rest, and fixed, stable

p: ۲۷۴

and unchanging in all its aspects. It is as if (p. ۲۲۹) the poor metaphysician were

deprived of any kinds of knowledge and stripped of both consciousness and sensation. Thus, he became unperceptive and unaware of the kinds of changes and transformations in the realm of nature, of which all human beings, including children, .are aware

It is clear to everyone chat the acceptance of the presence of change in the realm of nature is a matter that does not require prior scientific study, and is not the subject of .controversy or dispute

Rather, what is worthy of study is the nature of this change and the extent of its profundity and generality. For change is of two kinds: one of them is pure succession, and the other motion. The history of philosophy relates a sharp struggle, not with regard to change in general, but with regard to its essence and its precise philosophical explanation. The struggle centers on the answer to the following .questions

Is the change that occurs to a body, when that body traverses a certain distance, nothing but numerous poses that quickly follow one another in numerous places, thus forming in the mind the idea of motion? Or, can this change be attributed to a single ?gradual advance in which there is neither pose nor rest

Further, does the change that occurs to water, when the water's temperature is doubled and intensified, mean an assembly of successive temperatures that follow one another? Or is it one temperature that

becomes more complete, and that alters and becomes of a higher degree? We face these questions with regard to every kind of change that requires a philosophical .explanation in one of the two ways offered by these questions

Greek history relates that some philosophical schools denied motion and adopted the other explanation of change - that which attributes change to the succession of motionless things. One of the proponents of such schools is Zeno,(۱) who asserted

that the motion of a traveler from the farthest point on earth to the farthest opposite point is nothing but a series of successive rests. (p. ۲۳۰) Zeno did not see the gradual .(motion) and process of completion of existence

Rather, he believed that every phenomenon is static, and that change occurs by the succession of static things, and not by the development and gradual [motion] of one thing. With this, the motion of a human being over a certain distance becomes an expression of his rest at the first point of the distance, then at the second point and .after that at the third point, and so on

If we see two individuals, one of whom is standing at a certain point, while the other is walking in a specific direction, both individuals, according to Zeno's view, are standing at rest. The first, however, is constantly at rest in a specific point; while the other has .as many rests as the points he covers

At every moment, he is in a specific space, but at no

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۱ - Zeno of Elea, Greek philosopher (۴۹۰-۴۳۰ B.C.). A student and a defender of Parmenides. He is known for his paradoxes of space, time, motion and change. Some .fragments of his work in which he presented his paradoxes are still extant

moment does he differ at all from the first individual who stands at a specific point. Both individuals are at rest, even though the rest of the first is continuous, while the rest of the second quickly changes to another rest at another point of the distance. Hence, the difference between the two rests is the difference between a short rest .and a long rest

This is what Zeno as well as some ocher Greek philosophers attempted [to show]. He demonstrated his point of view by his four well-known proofs that did not meet with progress and success in the field of philosophy. This is because the Aristotelian school, the greatest philosophical school in the Greek age, accepted motion. It rejected and falsified those proofs and demonstrated the presence of motion and development in

.the neural phenomena and attributes

This means that a natural phenomenon may not fully exist at one moment. Rather, it exists gradually, and exhausts its possibilities step by step. This results in the occurrence of development and the completion of existence. When the temperature of water is doubled, this does not mean that at every moment water receives a specific degree of temperature that fully exists, then perishes, and then another .degree of temperature is freshly produced

Rather, the essence of this doubling (p. ۲۳۱) consists in that one temperature had existed in the water yet not fully, in the sense that it did not exhaust in its first moment all its powers and possibilities. Due to

this, it began to exhaust its possibilities gradually, and to advance and develop later .on

In philosophical terminology, it is a continuous progressive motion. It is clear that the process of completion or the developmental motion cannot be understood except in this sense. As for the succession of numerous phenomena- of which each one exists after the previous one and, by its own perishing, opens the way for a new phenomenon - it is not growth and completion. Consequently, it is not a motion, but a .kind of general change

Motion, therefore, is the gradual advance of existence and the development of a thing to the level permitted by its possibilities. That is why the philosophical notion of motion (is defined as the gradual actualization of the potentiality of a thing.(۱

This definition rests on the idea of motion presented earlier. Motion, as we have already learned, is not the absolute perishing of a thing and the existence of another .new thing. Rather, it is the progression of a thing in the order of existence

Therefore, from the time it begins to the time it ceases, every motion must contain one continuous existence. It is this-existence that moves, in the sense that [it

progresses] step by step and continuously becomes more enriched. Every step is one .of the stages of this one existence. These stages exist only by virtue of motion

Thus, a thing that moves or an existence that develops does not possess these stages before its motion; otherwise, there

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Potentiality is the possibility of a thing, while actuality is the real existence of a - ۱ .thing

would not be any motion.(۱) Rather, at the starting point, that thing or existence is represented to us as potentialities and possibilities. It is by motion that those possibilities are exhausted. At every step of the motion, possibility is substituted by .reality and potentiality by actuality

Thus, before water is placed on the fire, it possesses nothing of the perceptible temperature other than (p. ۲۳۲) its possibility. Further, this possibility that it possesses is not the possibility of a certain degree of temperature, but includes all the degrees of temperature that, in the last analysis, lead to the vapor state. When water begins to be acted upon and influenced by the heat of fire, its temperature begins to change .and develop

This means that the potentialities and possibilities that water enjoyed changed into a reality. At every stage of the motion, water proceeds from possibility to actuality. For this reason, potentiality and actuality are tied together in all the stages of the motion. At the point at which all possibilities are exhausted, motion ceases. Motion, therefore, is of two kinds at every stage. In one respect, it is actual and real. This is because the .step registered by a stage exists in a real and an actual manner

In another respect, it is a possibility and a potentiality of the other progressive steps that motion is expected to register in its new stages. Thus, if we observe the water in our example at a specific point of motion, we find

In other words, motion is for the sake of acquiring these stages of development or -۱ .completion. Therefore, when such stages are attained, motion, ceases

that it is actually hot at ۸۰ degrees (centigrade), for instance. However, at the same time, it involves the possibility of exceeding this degree and the potentiality of advancing to a higher degree. Hence, the actuality of every step in its specific stage is .linked to the potentiality for its perishing

Let us take a more profound example of motion. This is the living being that develops by a gradual motion. It is (at first) an ovum, then a zygote, then a fetus, then an infant, then an adolescent, and finally an adult. Indeed, at a specific stage of its motion, this being is an actual sperm. However, at the same time, it is something else opposite the .sperm and superior to it

That is, it is potentially an infant. This means that motion in this being is such that both actuality and potentiality are combined in it. If this living being does not have potentiality and possibility for a new stage, it will not have any motion. Further, if it is nothing in actuality, it will be pure non-existence; and hence, it will not have any .motion

Development, therefore, always consists of something actual and something potential. Thus, motion continues as long as a thing combines both actuality and potentiality, existence and possibility. If possibility is exhausted, and no capacity for a (new stage remains in the tiring, the life of motion ends. (p. ۲۳۳

This is the meaning of the gradual actualization of the potentiality of a thing, or the

entanglement or union of potentiality and actuality in motion. This is also the precise .philosophical sense that metaphysics gives to motion

Dialectical materialism has adopted this sense without understanding it and knowing

it as it is. Thus, it claimed that motion is not completed except through the continuous .contradiction at the heart of things, as we will soon learn

After this, Islamic philosophy played its role at the hands of the great Muslim philosopher, Saar ad-Din ash-Shirazi.(۱) He posited the theory of general motion, and demonstrated philosophically that motion, in the precise meaning that has been presented above, does not only touch the phenomena of nature and its accidental surface, but the motion of such phenomena is just an aspect of the development that discloses a deeper aspect: that is, the development at the heart of nature and the .substantial motion of nature

This is. so, because since the outermost motion of the phenomena means renewal and perishing, its direct cause must be a renewable thing whose essence is also unfixed. For the cause of what is fixed is fixed, and the cause of what is alterable and renewable is alterable and renewable. Thus, the direct cause of motion cannot be a fixed thing; otherwise, the parts of motion would not perish, but would become (stagnation and rest.(۲) (p. ۲۳۴

The philosopher ash-Shirazi did not only demonstrate substantial motion, but also showed clearly that the principle of motion in nature is one of the necessary philosophical principles (p. ۲۳۵) of metaphysics. In

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Sadr ad-Din ash-Shirazi, better known as Mulla Sadra (A.D. ۱۵۷۲-۱۶۴۱). He was born -۱ in Shiraz where he held a teaching position at a religious school. He is said to have made the pilgrimage to Mecca on foot seven times. He believed that ancient philosophy combined with revealed truth gives the highest form of truth. He wrote commentaries on as-Suhra Wardi's wikmat al-Ishraq and on parts of Ibn Sina's ash-Shifa'. He also wrote a number of original works, the best of which is Kitab al-Hikma al-Muta'aliya, the other title of thin work is Kitab al-Asfar al-Arba'a (The Four .(Journeys, i.e. of the soul

The main evidence for the substantial movement may be summed up in the -۲

following two points. First, the direct cause of the accidental and outermost motion of bodies – whether mechanical or natural – is a specific power in the body. This idea is true, even of the mechanical motion that at first appears as if proceeding from a separate power. For instance, if you force a body in a horizontal or a vertical line, the primitive notion of this motion is that it is an effect of the external force and the separate agent. But this is not true. The external agent is just one of the conditions for the motion. As for (p. ۲۳۴) the real mover, it is the power that exists in the body. Because of this, the motion continues after the separation of the moving body from the external force and the separate agent; and the moveable mechanical system continues moving for a while, after the moving instrumental agent seizes. On this basis, modern mechanics posited the law of essential limitation (ganun al-qusur adhdhatiyy). This law states that if a body is moved, is continues moving, unless something external stops it from continuing its moving activity. However, this law was misused, since it was considered as a proof that when motion begins, after that, it does not need a specific reason or a particular cause. It was taken as a means for rejecting the principle of causality and its laws. But the truth is that scientific experiments in modern mechanics show only that the separate external agent is not the real cause of motion; otherwise, the motion of a body would not continue after that body is separated from the independent external agent. Due to this, the direct cause of [continued] motion must be a power existing in the body [known as momentum], and the external agents must be conditions for, and influences on that power. Second, the effect must be appropriate to the cause in stability and renewability. If the cause is stable, the effect must also be stable; and if the effect is renewable and progressive, the cause must also be renewable and progressive. In light of this, it is necessary that the cause of motion be moveable and renewable, in accordance with the renewal and progression of the motion itself. For, if the cause of motion is stable and fixed, anything it produces will be stable and fixed. Thus, motion becomes rest and fixedness. But this contradicts the meaning of motion and development. On the basis of the above two points, we conclude the following, First, the power that exists in a body and that moves it is a moveable and progressive power. Owing to its progression, this power is a cause of all the accidental and outermost motions. Further, it is a substantial power, since it inevitably leads to a

substantial power; for an accident exists by virtue of a substance. This demonstrates the existence of substantial motion in nature. Second, a body is always composed of a matter made evident by motion, and a progressive substantial power by virtue of which the outermost motion occurs in the phenomena and accidents of the body. At the present, we cannot touch upon the substantial motion and its proofs at greater .length

light of this principle, he explained the connection of the new with the old,(۱) as well as a number of other philosophical problems, such as the problem of time,(۲) the issue of (the separability of matter, and the relation of the soul to the body.(۳

After all this, can one accuse theology and metaphysics of asserting the frozenness and rest of nature? Actually, there is no reason for this accusation other than the fact that dialectical materialism does not understand motion in the proper philosophical sense. What then is the difference between motion and its general law in our philosophy and the theory of dialectical motion in dialectical materialism? The .difference between the two kinds of motion is summed up in two basic points

The first point is that motion in the dialectical sense is based on (p. ۲۳۶) the contradiction and strife among contradictories. Such contradiction and strife are the internal power that causes motion and produces development. In our philosophical .view of motion, the reverse of this is true

According to our view, motion is considered as a progression from one step to an opposite step, without the union of those opposite steps in one of the stages of motion. For the purpose of clarifying this point, we must distinguish between potentiality and actuality and analyze the Marxist fallacy which rests on the .consideration of potentiality and actuality as contradictory units

Motion is composed of potentiality and actuality. Potentiality and actuality are tied up together in the various stages of

١- The problem of the relation of the new to the old is this. Since the cause is old and eternal, it must be a cause of what is appropriate to it and agrees with it in oldness and eternity. On the basis of this, a number of metaphysicians imagined that belief in the Eternal Creator philosophically necessitates belief in the oldness and eternity of the world, so that the effect will not be separated from its cause. Ash-Shirazi solved this problem in light of the substantial motion, according to which the following holds. The realm of matter is in a continuous state of renewal and development. Thus, on this ground, the world's coming into being was a necessary effect of its own renewable nature, and not the effect of the coming into being and the renewal of the First Creator.

٢- Ash-Shirazi offered a new explanation of time, in which time is attributed to the substantial motion of nature. Thus, time becomes in this philosophical view of ash-Shirazi a constitutive element of the body, and no longer separate and independent from it.

٣- We will discuss the separability of matter and the relation of the soul to the body in the last chapter of this investigation.

motion. It is impossible for the nature of motion to exist without either of these two elements. Thus, existence in every stage of its progression toward completion involves a specific actual rank and a higher rank than that in' potentiality. At the moment at which it adapts itself to the [specific actual] rank, it progresses in an ascending fashion and supersedes its present rank.

Marxism has imagined chat this is a kind of contradiction, that the progressive existence involves the thing and its contradictory, and that the contradiction between the two contradictories is what produces the motion. We quote from Engels:

The situation would be completely different if we see the existents while in the state of their motion, change, and mutual influences on one another; for at the beginning of such a site, we find ourselves immersed in contradictions.

Motion contradicts the fact that the simplest mechanical change in place cannot, in the last analysis, occur except by means of the presence of a certain body in a certain

place at a certain moment, and in (p. ٢٨٧) another place at that same moment. In other words, its being and nonbeing are simultaneously in one place. The continuous succession of this contradiction and the temporary reconciliation of this contradiction with this succession is what is called motion.(١)

Reflect on how nonsensical the idea of motion is in dialectical materialism! Engels explains this idea on the basis of contradiction, not knowing that if two ranks of motion actually existed in a specific stage

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١- Did Duharnak al-Falsafa, p. ٢٠٢.

of the motion, development would not be possible; and consequently, motion would be frozen. The reason for this is that motion is a transposition of the existent from one rank to another rank and from one limit to another limit.

Thus, if all limits and points were actually united, there would not be any motion. Therefore, it is necessary not to explain motion except in light of the principle of non-contradiction; otherwise, if contradiction were permissible, then it would be appropriate for us to ask whether or not motion involves a change in the ranks of the progressive thing, and a substitution of the limits and quality of that thing. If motion does not involve any change or renewal, then it is not motion.

Rather, it is frozenness and fixedness. If Marxism admits the renewal and change of motion, [then the question is] this: for what purpose is this renewal if all contradictions are actually present and have no opposition among themselves? The simplest analysis of motion shows us that motion is one of the phenomena that prevent and make impossible the union of contradictories and opposites, something that imposes on the progressive existent a continuous change in its rank and limit. The alleged contradiction or dialectic in motion is only due to the confusion between potentiality and actuality.

Hence, at no stage does motion involve two ranks or two actual contradictories.

Rather, it involves a specific rank in actuality and another rank in potentiality. For this reason, (p. ۲۸۸) motion

p: ۲۸۴

is a gradual actualization of potentiality. However, incomplete philosophical awareness was the cause of the falsification of the idea of motion.

This makes it clear that the law of contradicting non-contradiction (naqd an-naqd) and the explanation of motion in terms of this law, as well as all the confusion and clamor surrounding this law, and the displeasure with, and ridicule of the metaphysical notions that adopt the principle of non-contradiction are attributed to the philosophical idea of motion that we have already presented and that Marxism misunderstood.

Thus, Marxism considered the entanglement of actuality with potentiality or their union in all the stages of motion as a union of actual opposite things, a continuous contradiction and a strife among the contradictories. For this reason, Marxism rejected the principle of non-contradiction and put down the whole general logic.

This Marxist attempt is not the first of its kind. Some metaphysicians in the history of ancient philosophy had also attempted something similar, but with one difference between the two: Marxism wished to justify contradiction by this attempt; whereas those ancient metaphysicians had attempted to demonstrate the negation of the possibility of motion because motion involves contradiction.

Al-Fakhr ad-Din ar-Razi(۱) had also made a similar attempt in which he mentioned that motion is a gradual progression - that is, a gradual existence of a thing. He claimed that the gradual progression of existence is unlikely, since it leads to a kind of contradiction. Scholars of philosophy have shown that [this idea of motion] was the

p: ۲۸۵

۱- Fakhr ad-Din ar-Razi, Muslim theologian and philosopher of religion (۱۱۴۹-۱۲۰۹). He

was an Ash'arite and had many debates against the mu'tazilites. However, at the end of his life he saw no value in the dialectic method. Early in his career, he wrote Lubab al-Isharat (a commentary on Ibn Sina's al-Isharat wat-Tanbihat. This commentary was the subject of criticism by Nasir ad-Din at-Tusi). Other early works are: al-Mabahith al-Mashriqiyya and a somewhat autobiographical work, Munazarat al-'allama, Fakhr ad-Din (a description of his encounters with certain scholars). His most important theological work is a commentary on the Qur'an, Mafatih al-Ghayb. Another .important work is Manaqib al-Imam ash-Shafi'i

product of misunderstanding the meaning of gradual progression and gradual .existence

Since we now know with clarity that motion is not a strife among actual things that are always in contradiction, but an entanglement of potentiality with actuality, and the gradual departure of a thing from one of these two states to the other, we can know that it is impossible for motion to be selfsufficient or without an [external] cause, that the progressive existence does not depart from (p. ۲۳۹) actuality except due to an external cause, and that strife among contradictories is not the internal cause of that departure, since motion does not involve a union of contradictories or opposites from .whose strife it can result

As long as at the beginning of the motion, the progressive existence is empty of ranks or kinds, which it acquires throughout the stages of the motion, and as long as it does not internally involve anything except the possibility of those ranks and the readiness for them, there must be a cause for bringing that existence from potentiality to actuality, in order that its possibility which is fixed in its innermost being be converted .into a reality

We learn from this that the general law of motion in nature proves by itself the necessity of the existence of a principle external to the material limits of nature. The reason is that motion, according to this law, is the manner in which nature exists. Thus, the existence of nature is another form of the

motion and gradual progression of nature, as well as its continuous departure from potentiality toactuality. The theory of the self-sufficiency of motion due to its internal contradictions whose strife among each other produces motion, according to the claim of the Marxists, has already collapsed, since there is no contradiction and no .strife

Therefore, there must be causation, and causation must be by something external to the limits of nature. For everything existing in nature is such that its existence is motion and gradual progression, since there is no fixedness in the realm of nature according to the law of general motion. Hence, in searching for the [primary] cause, .we cannot stop at something natural

The second point is that motion, according to the Marxist view, does not stop at the limits of the objective reality of nature. Rather, it is also common to human truths and ideas. As the external reality of matter develops and grows, so also do the truths and mental perceptions submit to the same laws of development and growth that apply to the realm of nature. On the basis of this, there are no absolute truths according to the (Marxist view of ideas. (p. ۲۴۰

We are told by Lenin: 'Therefore, the dialectic, in the view of Marx, is the science of (the general laws of motion, whether in the external world or in the human mind.'(۱

According to our opinion, however, the law of general motion is the opposite of this. It is a natural law common

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.Marx, Engels wal-Marxiyya, p. ۲۴ -۱

to the realm of matter and does not extend to the realm of thought and knowledge. Truth and knowledge do not involve and cannot involve development in the precise philosophical sense, as we pointed out with clarity in the first investigation (the theory .(of knowledge

Our present purpose of studying the alleged dialectical motion of knowledge and truth is to present the main attempts that Marxism adopted for demonstrating the dialectic and the movement of thought. These attempts are summed up as three. The first attempt is that thought and knowledge are reflections of the objective reality. In order for them to correspond to this reality, they must reflect its laws, its development and its movement. Nature develops and changes continuously in accordance with the law of motion.

Truth could not portray nature in the human mind if truth were frozen and at rest. Rather, truth exists in our thoughts, only if these thoughts are such that they grow and develop dialectically, so that our thoughts of things match the things themselves.

In this respect, we should pay attention to the following texts: (p. ۲۴۱)

Reality grows, and the knowledge chat results from this reality reflects it, grows as it grows, and becomes an effective element of its growth. Thought does not produce its subject. Rather, it reflects and portrays objective reality by disclosing the laws of the growth of this reality.(۱)

The difference between formal logic and dialectical logic is confined to the fact that both of them face in different

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۱- Ma Hiya al-Madda, p. ۵۶.

ways the basic issue of logic, i.e. the issue of truth. From the point of view of dialectical logic, truth is not something given once and for all. It is not something complete, determined, frozen, and at rest. Rather, it is the opposite of this. Truth is a process of the growth of a human being's knowledge of the objective world.(۱)

The Marxist dialectical logic treats the thing that it studies from a historical point of view inasmuch as that thing is a process of growth and development. It agrees with the general history of knowledge and the history of science.(۲)

There is no doubt that thought and knowledge portray objective reality in some form. But this does not mean that the motion of objective reality is reflected in them and, therefore, that they grow and move in accordance with its [growth and motion]. The .reason is this

The realm of nature - that is, the realm of change, renewal and motion necessarily involves fixed general laws. No logic can deny this, except if it denies itself. For a logic cannot be a logic, unless it establishes (p. ۲۴۲) its method of thinking and its understanding of the world on fixed, specific laws. Even the dialectic itself asserts that a number of laws are in control of nature and always govern it. One of these laws is .that of motion

Therefore, the realm of nature -whether subject to the general human law or to the - law of dialectics or disputation

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.Al-Mantiq ash-Shakliyy wal-Mantiq ad-Dialaktikiyy, p. ۹ -۱
.Ibid., p. ۱۲ -۲

involves fixed laws chat reflect fixed truths in the realm of thought and the area of human knowledge. With regard to this objection, the dialecticians have to choose .between the following two considerations

They either consider the law of motion as fixed and constant, thus there would be constant truth; or that the same law is re-evaluated. This would mean that motion is not constant, that it may be transformed into rest, and that truths become fixed after they had been moveable. In either case, the dialectic would be forced to admit the .presence of a third truth

Thought, knowledge and truth do not reflect the actual properties of nature. We have already pointed out in 'the theory of knowledge' that the human mind comprehends the notions and natures of objective things. The notions of those things that are reflected in the mind are different from the external realities in existence and

.properties

Thus, the scientist is able to form a precise scientific idea about the microbe, its composition, its specific activity and its interaction with the human body. However, no matter how precise and detailed an idea may be, it does not involve the properties of the external microbe and cannot play the same role played by its own objective .reality

The physicist may acquire a precise scientific notion of the radium atom and may determine its atomic weight, the number of electrons it carries, its negative and positive charges, the quantity of radiation it emits, and the exact

p: ۲۹۰

scientific proportion of this radiation to the radiation emitted by the uranium atom, as .well as other information and details

However, (p. ۲۴۳) regardless of the depth of this notion or its profound disclosure of the mysteries of the radium element, it will not acquire the properties of objective reality – namely, the properties of the radium – nor will it emit the radiation emitted by the atoms of this element. Consequently, our notion of the atom will not develop into .radiation, as do some atoms in the external world

Thus, it becomes clear that the laws and properties of objective reality are not present in the idea itself. Motion is one of those laws and properties. Thus, even though it is a general property of matter and one of its fixed laws, the truth in our minds or the idea that reflects nature does not involve this property. A true idea need not reflect objective reality in its properties and various kinds of activities; otherwise, .none of our ideas would be true

In spite of the fact that metaphysics considers nature as a realm of continuous motion and development, yet it differs from the dialectic in rejecting the application of the law of motion to mental notions, for such notions do not involve all the properties of .objective reality

This does not mean that if the metaphysicians form a notion about nature in one of its stages, therefore, they freeze their ideas, stop their research, and consider this notion sufficient for

p: ۲۹۱

disclosing the innermost secrets of nature in all its stages. We do not know any reasonable person who would be satisfied, for example, with the scientific notion that he forms about the ovum, thus discontinuing the progression of the living being in its second stage, and contenting himself with the scientific notion that he had formed .about it in that specific stage

Thus, we .believe that nature develops, and we find it necessary to study it in every stage of its growth and motion, and to form a notion about it. This is not something restricted to the dialectic. What metaphysics rejects is (p. ۲۴۴) the existence of a .natural dynamic motion in every mental notion

Therefore, metaphysics calls for a distinction between the ovum and our scientific notion of the ovum. The ovum develops and grows naturally. It becomes a zygote and then a fetus. But our notion of it is fixed. It cannot under any circumstance become a sperm. Rather, for knowing what a sperm is we must form another notion in light of .observing the ovum in a new stage

Thought about the development of the ovum is like a movie film that takes a number of successive pictures. The first picture in the film is not the one that develops and .moves. Rather, it is the succession among the pictures that constitutes the movie film

On the basis of this, human knowledge would not reflect reality, except inasmuch as the movie film reflects the kinds of motion and

p: ۲۹۲

activity that it includes. Thus, knowledge does not develop or grow in a dialectical manner, in accordance with the reflected reality. Rather, it is necessary to form a .fixed knowledge of every stage of reality

Let us take as another example the element of uranium that exhibits the alpha wave, the beta wave and the gamma wave, and gradually changes to another element lighter than it in its atomic weight - this is the radium element that, in turn, gradually changes to an element lighter than it, and passes through [various] stages, until is becomes lead.

This is an objective reality explained by science. In light of it, we form our specific notion about it. What then does Marxism mean by the dialectical development of the mental notion or truth in accordance with the development of reality? If it means by this that our very scientific notion about uranium develops dialectically and naturally in accordance with the development of the uranium - thus emitting the specific waves of uranium and transforming, in the last analysis, into lead - this will be closer to a charming, humorous chat than to a reasonable philosophical discourse.

If, on the other hand, Marxism intends [by this] that human beings must not view uranium as a frozen, motionless element, (p. ۲۴۵) but as something that continues its progression, and about every stage of which human beings form a notion, this will close the discussion; [for] it does not mean a dialectical motion in truths and notions. Every

notion we form about a specific stage of the development of uranium is fixed and does not develop dialectically to another notion.

Rather, a new notion is added to it.

At the end of this process, we possess a number of fixed notions and truths, every one of which portrays a specific level of the objective reality. Where then is the disputation or dialectic of thought? Also, where is the notion that develops naturally in accordance with the external development? This is all that relates to the first Marxist attempt and its refutation.

The second attempt made by Marxism to demonstrate the dialectic and development

of thought is that thought or knowledge is one of the natural phenomena and a superior product of matter. Consequently, it is part of nature. Therefore, it is governed by the same laws that administer nature. It alters and grows dialectically, .as do all the phenomena of nature

We must warn that this demonstration is different from the abovementioned demonstration. In the previous demonstration, Marxism attempted to show that motion is present in thought due to the thought's character as a reflection of the moving reality. The reflection is not complete if the moving reality is not reflected in thought in its motion and growth. In the present attempt, however, Marxism endeavors to show that the dialectical motion of thought is due to the thought's .character as a part of nature

Thus, the laws of the dialectic apply to both matter and knowledge, and extend to reality and

thought alike, since each of them is an aspect of nature. Thought or truth develops and grows, not only because it reflects a reality that develops and grows, (p. ۲۴۶) but also because it itself is a part of the realm that develops in accordance with the laws of the dialectic. As the dialectic dictates the existence of dynamic motion, which is grounded on the basis of internal contradiction in the innermost being of every objective phenomenon of nature, it also dictates the existence of dynamic motion in .all the phenomena of thought and knowledge

:Let us go over what is related to this subject in the following texts

Being is the motion of matter which is subject to laws. Since our knowledge is nothing but a superior product of nature, it cannot but reflect these laws.(۱)

If we inquire about the nature of thought, the nature of awareness, and their source, we will find that human beings are themselves the product of nature. They grow in a certain community and with the growth of that community. At this point, it becomes

evident that the products of the human mind which are also, in the last analysis, products of nature, are not in contradiction, but in agreement with the rest of the (interconnected nature.(٢

The basic point on which this demonstration rests is the adoption of the purely materialistic explanation of knowledge that imposes on knowledge a sharing with all the laws and decrees of nature, including the law of motion. We

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.[See p. ١٧٢ [of the original text -١

.[See p. ١٧٢ [of the original text -٢

.will analyze this basic point in an independent chapter of this investigation

At the present, however, we are attempting to inquire from the Marxists whether the materialistic explanation of thought or knowledge is reserved for the thoughts of the dialecticians in particular. Or does it also pervade the thoughts of others who (p. ٢٤٧) do not accept the dialectic? If it pervades all thoughts - as the materialistic philosophy necessitates - then all thoughts must be subject to the laws of the general .development of matter

But because of this, it becomes curiously contradictory for Marxism to accuse other thoughts of frozenness and stationariness, and to consider its thought as the only one that develops and grows due to the fact that it is a part of the progressive nature, even though all human thoughts, according to the materialistic notion, are nothing but a product of nature. All that there is to this matter is that the proponents of the general or formal logic, as they claim, do not accept the dialectical development of .thought, as the Marxists do

However, when was the acceptance of a natural law a condition for the existence of that law? Do not the body of Pasteur,(١) the discoverer of the microbe, and the body of Ibn Send, who did not know anything about the microbe, both share reaction to germs, in accordance with the specific natural laws governing germs? The same holds

true for every natural law. Thus, if the dialectic is a natural law

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۱ - Louis Pasteur, French chemist and microbiologist (۱۸۲۲-۹۵). Pasteur showed that fermentation and certain diseases are caused by microorganisms. He was a pioneer in the use of vaccines. He was the first, for example, to use a vaccine for rabies. He is said to have saved the wine, beer and silk industries of a number of European countries. To him we owe our knowledge of pasteurization. His principal publication is Studies on Beer (۱۸۷۶). In ۱۸۷۹, this was translated into English under the title Studies on Fermentation.

common to both thought and matter, then it must apply to [all] human thoughts alike. If there is anything to its discovery, it is only the speed of the developmental motion.

The third attempt is the exploitation of scientific development and wholeness in the various fields, and the consideration of this as an empirical evidence for the dialectic and development of thought. The history of sciences, according to the Marxist claim, is itself the history of the dialectical movement of the human thought that becomes more complete with the passage of time.

Here is a citation from Kedrov:

The absolute truth which results from relative truths is a historical movement of development. It is the movement of knowledge. It is precisely for this reason that the Marxist dialectical logic treats the thing that it studies from a historical point of view, i.e. from the point of view of that thing's being a process of growth and development.

This logic (p. ۲۴۸) is in agreement with the general history of knowledge and the history of science. By using as examples the natural sciences, economics, politics, and history, Lenin shows that the dialectic derives its conclusions from the history of thought, while at the same time, he asserts that the history of thought in logic must agree, in part and in whole, with the laws of thought.(۱)

No two persons disagree on the fact that the history of human knowledge and science is full of advances and completion of knowledge in the various fields and

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.Al-Mantiq ash-Shakliyy wal-Mantiq ad-Dialaktikiyy pp. ۱۲-۱۳ -۱

in the different types of life and experience.' Casting one glance on science in its present and past makes us fully believe the extent of the fast development and the remarkable completion that science has attained in its latest races. But this scientific .development is not a kind of motion in the philosophical sense intended by Marxism

Indeed, it is nothing more than a decrease in the quantity of errors and an increase in the quantity of truths. Science develops, not in the sense that scientific truth grows and becomes complete, but in the sense that its truths multiply and are increased in number, and its errors are reduced and decreased in number, in accordance with the enlargement of the experimental scope, the deeper plunge into experimentation, and .the precision of the means of experimentation

In order to clarify this, it is necessary to give an idea about the procession of the scientific development and the method of gradual progression and completion in the scientific theories and truths, so that we can see clearly the difference between the alleged dialectic of thought, on the one hand, and the historical development of the .human sciences, on the other hand

Scientific truths begin with a theoretical procedure, such as with a research hypothesis that occurs to the natural scientist due to a number of previous pieces of information and scientific or simple observations. A hypothesis is the first stage that .the scientific theory crosses in its developmental procession

After that, the scientist begins

a scientific investigation and an experimental study (p. ۲۴۹) of that hypothesis. He

performs all kinds of tests by means of precise scientific observations and various experiments in a field related to the hypothesis. If the results of the observations or experiments agree with the hypothesis and are in harmony with its nature and with the nature of its phenomena, the hypothesis acquires a new character: that is, the .character of a scientific law

Subsequently, the theory enters the second stage of its scientific procession. But this development that transfers the theory from the level of a hypothesis to that of a law does not mean that the scientific truth has grown and altered. Rather, it means that a specific idea was the subject of doubt, but has attained the level of scientific trust and .certitude

Thus, Pasteur's theory concerning microbic living beings, which he posited on an intuitive basis, was then confirmed by careful observations through modern scientific means. Also, the theory of general gravity, the hypothesis for which was evoked in Newton's mind by a simple scene (the scene of the fall of an apple on the ground), made Newton inquire as to why it is that the force that made the apple fall on the ground is not itself the force that preserves the moon's balance and guides its motion? Later, experiments and scientific observations confirmed the applicability of gravity to the celestial bodies, and considered it a general law based on a specific .relation

The same is

p: ۲۹۹

true of the theory stating that the difference in the speed of the fall of bodies is attributed to the resistance of air, and not to the difference in their mass, which was introduced as an [important] scientific event whose truth was later proved by science through experiments on various bodies in a place void of air - thus demonstrating that all bodies share a certain degree of speed - I say chat such a theory and thousands of other theories, which have all passed through the above-mentioned stage of .development by crossing the level of a hypothesis to the level of a law

They do not express by this crossing and development of a growth in the same truth, but a difference in the level of its scientific acceptance. The idea is the same idea, but it has passed scientific examination. (p. ۲۵۰) Due to this, is became clear as a truth, .after is had been the subject of doubt

When this theory attains its proper position among scientific laws, it plays its role of application, and acquires the property of scientific reference for explaining the phenomena of nature that appear in observation, experimentation or disclosure of new truths and secrets. The more such a theory can discover unknown truths, whose soundness is later confirmed by experiments, the more established and the clearer .does it become in the scientific mentality

For this reason, the scientists' discovery of the planet Neptune in light of the law of gravity and its mathematical

p: ۳۰۰

formula was considered a great victory for the theory of general gravity. The existence of this planet was then confirmed by scientific observations. This, too, is nothing but a kind of strong scientific confidence in the truth and soundness of the .theory

If the theory is constantly accompanied by success in the scientific field, it is then confirmed for good. If, on the other hand, it begins to shift from corresponding to the reality that is scientifically scrutinized, after carefully examining the systems and tools, and after making penetrating observations and tests, the theory begins at that .point the stage of adjustment and renewal

In this stage, new observations and experiments may be required to complete the previous scientific theory by means of new notions that are added to the previous theory, so that a unified explanation of the whole experimental reality will be attained. Pieces of scientific evidence may reveal the falsehood of the previous theory. Thus, in light of experiments and observations, this theory collapses and is substituted by .another

In none of this can we understand scientific development in a dialectical fashion or imagine the truth as it is supposed by the dialectic – that is, that it grows and alters in accordance with the contradictions that it involves internally; thus, taking on in every stage a new foot, while in all those forms it is a complete scientific truth.

This is quite different from the scientific reality (p. ۲۵۱) of human thought. Rather, what happens in the area of

p: ۳۰۱

scientific adjustment is the attainment of new truths that are added to the fixed scientific truth, or the discovery of the falsehood of the previous truth and the truth of another idea for explaining reality.

What occurred to the atomic theory (the theory of atomism) falls in the first category: the attainment of new truths that are added to the fixed scientific truth. This theory was first a hypothesis, and then, in accordance with experiments, it became a scientific law. Later, in light of experiments, physics was able to reach [the conclusion] that the atom is not the primordial unit of matter, but that it itself also consists of parts.

This is how the atomic theory was completed by a new scientific notion of the nucleus and the charges of which the atom is composed. The truth did not grow, but the scientific truths were increased in number. However, the quantitative increase is other than the dialectical growth and the philosophical movement of truth.

What occurred to the theory of general gravity (the mechanical explanation of the world in Newton's theories) falls in the second category (the discovery of the falsehood of a previous theory and the truth of another idea). The disagreement of this explanation with a number of electric and magnetic phenomena has been noticed. The same is true of the inappropriateness of this explanation for explaining the manner in which light forms and propagates as well as similar points that were taken by later physicists to constitute an evidence of

.the falsehood of the Newtonian notion of the world

On the basis of this, Einstein put forth his theory of relativity that he cast in a mathematical explanation of the world that differs completely from that of Newton. Can we then say that Newton's theory for explaining the world and that of Einstein are both true, and that the truth has developed and grown such that it took the form ?of the relativity theory after it had been in the form of (the theory of) general gravity

Further, is time, space, and mass,(۱) the absolute fixed triad in Newton's explanation, the scientific truth that (p. ۲۵۲) grew and altered in accordance with the law of dialectical movement, and was then transformed into the relativity of time, space and mass?(۲) Or has the force of gravity in Newton's theory developed into a curvature in space [time]; thus, the mechanical force by motion is a property of the geometry of the world,(۳) by means of which the motion of earth around the sun and other motions ?are explained, as is the bending of nuclear radiation

The only reasonable [interpretation] is that careful or numerous experiments have led to the manifestation of error [of incompleteness] in the previous theory, the absence of truth (or generality] in it, and the evidence of the presence of truth [or generality] in (another explanation.(۴

At last, our assertion becomes clear; namely, that scientific development does not mean that the truth grows and comes into being gradually. Rather, it means the

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.(Text: ath-thiql (weight -۱

.(Text: ath-thiql (weight -۲

.Fa-asbahat al-quwwa al-mikanikiyya khassat handasa lil-'alum -۳

Compare what we have mentioned with the Marxist explanation of transformation -۴ in the mechanical sciences. This explanation was offered by Dr Taqi Arni in his book, Materialism Diyalaktic, p. ۲۸. He bases this explanation on the presence of truth in

both Newton's mechanics and relativity mechanics, and on the development of the .truth in both of these mechanics, in accordance with the dialectic

completion of knowledge inasmuch as knowledge is a whole; that is, inasmuch as it is an assembly of theories and laws. Further, its completion means a quantitative .increase of its truths and a quantitative decrease of its errors

Finally, we wish to know what Marxism seeks in the development of the truth. Indeed, Marxism seeks two things in the assertion of the development of the truth and the .application of the dialectic to the truth

First, it seeks a negation of absolute truth. If the truth continuously moves and grows, then there is no fixed and absolute truth. Consequently, the metaphysical fixed truths, for which Marxism condemns theology, will be destroyed. Second, it seeks to deny .absolute falsity in the march of scientific development

Scientific development, (p. ۲۵۳) in the dialectical sense, does not mean that the previous theory is absolutely false, but that it is a relative truth. This means that it is a truth at a specific stage of development and growth. By means of this, Marxism .placed the security of truth in the various stages of scientific completion

These two aims collapse in light of the sound and reasonable explanation of scientific development that we have presented above. In accordance with this explanation, the scientific development is not a growth of a specific truth, but new discoveries of truths not known before, as well as corrections of previous errors. Every corrigible error is .an absolute error, and every discoverable truth is an absolute truth

Add to this that Marxism fell into

p: ۳۰۴

a basic confusion between truth, in the sense of thought, and truth, in the sense of independent objective reality. Metaphysics asserts the presence of absolute truth in the second sense. It accepts a fixed objective reality beyond the limits of nature. This is not incompatible with the negation of truth in the first sense and the continuous

.development of truth

Suppose that truth in the human mind is in a constant and a continuous development and movement. What harm would this cause the metaphysical reality admitted by theology, as long as we accept the possibility of an objective reality independent of consciousness and knowledge? Marxism can fulfill its wish if we pursue idealism and say that reality is the truth that exists in our minds only. Thus, if the truth in our minds develops and changes, then there will be no room for belief in an absolute reality. If, on the other hand, we distinguish between thought and reality, and accept the possibility of the existence of a reality independent of consciousness and thought, then there will be no harm to the existence of an absolute reality external to the limits (of knowledge, even though there may not be any absolute truth in our minds. (p. ۲۵۴

The Contradictions of Development .۲

point

:The following passage is taken from Stalin

Contrary to metaphysics, the starting point of the dialectic is the view which rests on the fact that all natural events and things involve contradictions, since all of them involve a negative aspect as well as a positive

p: ۳۰۵

.aspect in the past and in the present

Further, they all have elements that disintegrate or develop. Thus, the strife of these opposites lies in the internal content responsible for transferring the quantitative (changes to qualitative changes.(۱

:Again, Mao Tse-tung says

The law of contradiction in things, i.e. the law of the union of opposites, is the basic .and most important law in dialectical materialism

Lenin tells us: 'The dialectic, in the precise sense, is a study of the contradiction in the innermost essence of things.'

Lenin often called this law 'the essence of the dialectic', as he called it 'the heart of the dialectic'.(۲) (p. ۲۵۵)

This is the basic law that the dialectic alleges to be capable of explaining nature and the world, as well as justifying linear movement and the developments and leaps that this-movement involves.

When Lenin discarded the notion of the first principle from his philosophy, and considered as totally improbable the assumption of a cause external to, and beyond [to nature], he found himself required to provide a justification and an explanation of the continuous march and the constant change, in the realm of matter, in order to show how matter develops and cakes on different forms; that is, in order to determine the source of motion and the primary cause of the phenomena of existence.

He assumed that this source is in the internal content of matter; hence, matter contains a continuous replenishment of motion. But how does matter contain this replenishment? This is the main question regarding

p: ۳۰۶

۱- Al-Maddiyya ad-Dialaktikiyya wal-Maddiyya at-Tarikhiyya, p. ۱۲.

۲- Hawl at-Tanaqud, p. ۴.

this issue. Dialectical materialism answers this question by saying that matter is a union of opposites and an assembly of contradictories. If all opposites and contradictories melt in a specific unity, it will be natural then that they struggle among each other for the acquisition of knowledge. Development and change result from this struggle.

Consequently, nature attains the stages of its completion by way of this method. On

the basis of this, Marxism abandoned the principle of non-contradiction. It considered it a characteristic of metaphysical thought and one of the fundamentals of formal logic chat succumb to the sharp pickax of the dialectic.

This is confirmed by Kedrov in the following statement:

By the expression 'formal logic' we understand the logic that rests on nothing other than the four laws of thought: the law of identity, the law of contradiction, the law of conversion, and the law of demonstration. This logic stops at this point. But we consider the dialectical logic, on the other hand, as the science of thought which rests on the Marxist method which is characterized by the following main points: admission of (۱) the general linkage, (p. ۲۵۶) (۲) the movement of development, (۸) the leaps of development, and (۴) the contradiction of development.(۱)

Thus, we see that the dialectic discarded from its field most of the intuitive human thoughts. It rejected the principle of non-contradiction; instead, it assumed contradiction as a general law of nature and existence. In this rejection and assumption, the dialectic unconsciously applied

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۱- Al-Mantiq ash-Shakliyy wal-Mantiq ad-Dialaktikiyy, p. ۹.

the principle of non-contradiction.

When the dialectician admits the dialectical contradictions and the dialectical explanation of nature, he finds himself obliged to reject the principle of non-contradiction and its metaphysical explanation. Clearly, this is only due to the fact that human nature cannot reconcile negation and affirmation.

Rather, it essentially feels an absolute opposition between the two. If this is not so, then why did Marxism reject the principle of non-contradiction and assert its falsehood? Is it not because it accepted contradiction and could not accept its negation, as long as it had already accepted its affirmation?

Thus, we know that the principle of non-contradiction is the general basic principle of which human thought was never free, even at the point of enthusiasm for disputation .and dialectics

Dialectical contradiction also resulted in the elimination of the principle of identity (a is a) from the dictionary of disputation. A thing was permitted to be other than itself. Indeed, the general dialectical contradiction makes this necessary, for everything involves its contradictory and expresses its own negation at the time of its .affirmation

Thus 'a is a' is not so absolutely. Rather, every being is the contradictory and the negation of itself, as it is an affirmation of it. This is so, because its being is essentially contradictory and involves negation and affirmation that are always in conflict and .that, by their conflict, erupt (p. ٢٥٧) in motion

The Marxists have not attempted to prove the contradiction of things- that is, the law of dialectics and

p: ٣٠٨

its disputational basis - except by a group of examples and phenomena, by means of .which they tried to show the contradiction and disputation of nature

Thus, [to them], contradiction is just one of the laws of dialectical logic, since nature itself is contradictory and dialectical. This is made evident by the kinds of contradiction given by the senses or revealed by science, which destroy the principle of non-contradiction and make it inconsistent with the reality and laws of nature that govern .the various fields and areas of nature

We have alluded earlier to the fact that Marxism did not find a way to the dynamism of nature and to making the forces that are active by motion as the internal content of the same progressive matter, except by starting from contradiction and accepting the union of contradictories in a progressive unity, in accordance with the struggle and .strife of these contradictories

The issue, according to Marxism, is only two sided. First, we either form our idea about the world on the principle that asserts non-contradiction. Thus, there would neither be negation and affirmation at the heart of things, nor would such things .involve the strife of contradictories

Consequently, we must search for the source of motion and development in a cause superior to nature and to its developments. Or else, second, we establish our logic on the belief that contradiction penetrates to the heart of things, and that in every being, ,opposites or negation and affirmation unite.(۱) (p. ۲۵۸) With this

p:۳۰۹

One notices that all Marxist texts misuse the terms 'contradiction' and 'opposition'. -۱ Thus, Marxism considers both of these terms in the same sense, even though they are not synonymous in philosophical traditions. Contradiction is the state of negation and affirmation; while opposition means two contrary affirmations. The straightness and the non-straightness of a line are contradictions, since they are an affirmation and a negation [respectively]. However, the straightness of a line (p. ۲۵۸) and the curvature of a line are two opposites. Contradiction in the philosophical sense is not applicable to the last pair, for neither of them is a negation of the other. Rather, it is an affirmation parallel to the affirmation of the other. Similarly, Marxism misunderstood opposition, or misused the term 'opposition'. It considered a thing which is different from another as its opposite. Thus [according to it], a chick is the opposite of an egg, and a chicken is the opposite of a chick, even though opposition in the philosophical sense is not just a difference among things. Rather, opposition is an attribute which cannot unite with another attribute in one thing. In this work, we [use these terms] in .accordance with the Marxist sense for the purpose of facilitation and clarification

.we find the secret of development in the internal contradiction

Since, according to the claims of Marxism, nature provides in every opportunity and in every field testimony and evidence for the confirmation of contradiction and the union .of contradictories and opposites, one must, therefore, adopt the second point of view

In fact, the principle of non-contradiction is the most general law and the most common to the various fields of application. No phenomenon of existence or being is an exception to it at all. Any dialectical attempt seeking to reject it or to show nature as contradictory is a primitive attempt that rests on the misunderstanding of the .principle of non-contradiction or on some misguidance

Therefore, let us at the outset explain the principle of non-contradiction in its necessary sense, which general logic considers as a main principle of human thought. After that, we will take up the phenomena of the alleged contradiction in nature and existence. It is on these phenomena that Marxism relies for establishing its dialectical logic, and for destroying the principle of non-contradiction and the principle of .identity

We will show that those phenomena are harmonious with these two principles, and that chose phenomena are empty(۱) of dialectical contradictions. With this, the dialectic loses its support in nature and its material evidence. Consequently, we determine the extent of the dialectic's failure to explain the world and to justify its (existence. (p. ۲۵۹

I. The Nature of the Principle of Non-Contradiction

The principle of non-contradiction states that contradiction is impossible. Thus, negation and affirmation cannot agree under any

p: ۳۱۰

۱- Text: wa-khuluwwihima (the emptiness of these two principles).

circumstance. This is clear; but what is the contradiction that this principle rejects and that the mind cannot accept? Is it any negation and affirmation? The answer is no, for not every negation contradicts every affirmation, and not every affirmation is incompatible with every negation. Rather, an affirmation is contradictory to its own .negation, and not to the negation of another affirmation

Thus, the existence of a thing is basically contradictory to the non-existence of that

thing, and not to the non-existence of another thing. What is meant by their incompatibility is that it is impossible for both of them to unite or to come together. For example, a square has four sides. This is a fixed geometrical truth. A triangle, on the .other hand, does not have four sides. This is also a fixed sound negation

There is no contradiction at all between this negation and that affirmation, for each of them deals with a specific subject that is different from the subject with which the other deals. The four sides are fixed in a square and are negated in a triangle. Hence, we have not negated what we have affirmed, nor affirmed what we have negated. There would be contradiction only if we affirm and also negate that a square has four .sides; or if we affirm and at the same time negate that a triangle has four sides

By virtue of this consideration, the metaphysical logic dictates that contradiction exists only between the negation and the affirmation that

agree in circumstances. Thus, if the circumstances of negation differ from the circumstances of affirmation, negation and affirmation will not be contradictory. Let us take a number of examples of negation and affirmation that differ in their .circumstances

Four is even.' 'Three is not even.' Negation and affirmation in these two propositions' are not contradictory due to the fact that each of them is different from the other in the subject with which it deals. Affirmation is related to 'four', and negation is related (to 'three'. (p. ۲۶۰

In infancy, a human being is quick to believe.' 'At the stage of youth and maturity, a' human being is not quick to believe.' Negation and affirmation in these two propositions are related to 'human beings'. However, each of them has its own time that differs from the time of the ocher. Therefore, there is no contradiction here .between the negation and the affirmation

An infant does not know in actuality.' 'An infant knows in potentiality; that is, it is'

possible that he knows.' Here, too, we are confronted with a negation and an affirmation that are not contradictory. This is because in the first proposition, we do not negate the same affirmation involved in the second proposition. The first proposition negates the attribute of knowledge in an infant. The second proposition .does not affirm this attribute

Instead, it affirms its possibility - that is, the capacity of the infant and his proper readiness for acquiring it. Therefore, it is the infant's potency

p: ٣١٢

for knowledge that the second proposition affirms, and not the infant's actual .knowledge

Thus, we know that contradiction between negation and affirmation is attained only if both share the subject with which each deals, and agree with regard to spatial and temporal conditions and circumstances, and the like. But if negation and affirmation do not agree in all these conditions and circumstances, then there will be no contradiction between them. There is no person or logic that can assert the .impossibility of the truth of both in this case

II. The Manner in which Marxism Understood Contradiction

point

After having studied the notion of contradiction and the content of the main principle of general logic - the principle of non-contradiction - we must shed some light on the Marxist understanding of this principle and on the justification to which Marxism resorted in its rejection of this principle. It is not difficult for one to realize that Marxism was not able to or did not care to understand this principle in the proper .sense

Thus, it rejected it for the sake of attaining its own materialism. (p. ٢۶١) It gathered a number of examples chat it claimed are inconsistent with this principle. Consequently, it posited contradiction and strife between contradictories and opposites as a

principle of its new logic. It filled the world with noise about this principle and boasted to the general human logic about constructing this principle and discovering .contradiction and strife between contradictories and opposites

In order for us to see the extent of error in which Marxism fell and

p: ۳۱۳

which led it to reject the principle of non-contradiction and the other principles that are based on it, such as the metaphysical logic, we must distinguish with clarity between two things: the first is strife between external opposites and contradictories; the second is strife between opposites and contradictories that come together in a .specific unity

It is the second that contradicts the principle of non-contradiction. As for the first, it has no relation to contradiction at all. This is because it is not concerned with the union of two contradictories or two opposites. Rather, it is referred to the independent existence of each of them. The presence of strife between them leads to a specific .result

The shape of the shore, for example, is the result of a mutual action between the waves and currents of water, on the one hand, that collide with the land (thus making the bank recede) and, on the other hand, the steadfastness of the land in the face of .the currents and its pushing back those waves to some extent

Further, the shape of a clay bottle is the result of a process that takes place between .a quantity of clay and the hand of a potter

If dialectical materialism intends this kind of strife between external opposites, this would not be at all incompatible with the principle of non-contradiction, and would not call for accepting contradiction which human thought has rejected from the beginning of its existence. The reason is that opposites never come together

p: ۳۱۴

.in a unity. Rather, each of them exists independently in its own sphere

They share in a mutual action by means of which they achieve a certain result. Moreover, this principle does not justify self-sufficiency and the dispensing with an external cause. The shape of the shore or the shape of the bottle is not determined .and does not exist through a development based (p. ۲۶۲) on internal contradictions

Rather, it is the result of an external process achieved by two independent opposites. This kind of strife between external opposites and their shared processes is not something discovered by materialism or the dialectic. Rather, iris something clear and affirmed by every logic and by every philosopher, whether a materialist or a .theologian, since the oldest times of materialism and theology, and until today

For instance, let us take Aristotle, the leader of the school of metaphysics in Greek philosophy. We choose Aristotle in particular, not only because he is a theology philosopher, but also because he has put forth the rules, principles and foundations of .'general logic which the Marxists call 'formal logic

Aristotle believes that there is strife between external opposites, even though he erects logic on the basis of the principle of non-contradiction. It did not occur to him that hundreds of years later, somebody will emerge to consider this strife as a proof .for the collapse of this necessary principle

:Here are some of Aristotle's texts concerning strife among external opposites

Put briefly, something of the same genus may be

p: ۳۱۵

actually accepted by something else of the same genus. The reason for this is that all opposites are of the same genus, and opposites act upon one another and accept one (another from one another.(۱

It is in accordance with the forth, and hoc in accordance with matter that a certain thing is added to every part in just any manner. In spite of this, the whole becomes

greater, for something is added to it. This thing is what is called 'nourishment'. It is also called 'opposite'.

However, this thing is nothing but a change in the very kind [of the whole]. For instance, when the damp is added to the dry, (p. ۲۶۸) it changes by becoming itself dry. In actuality, it is both possible chat that which is similar grows by that to which it is similar, and on the other hand, by that to which it is not similar.(۲)

Thus, it becomes clear that the common operations of external opposites do not reveal the dialectic, nor refute the metaphysical logic, nor constitute something new in the philosophical field. Rather, they are truths determined with clarity in all philosophies from the beginning of the history of philosophy. They involve nothing that helps attain the Marxist philosophical aims that Marxism seeks to achieve in light of the dialectic.

But if Marxism intends 'contradiction' in the real sense of the term, which attributes an internal source to motion - something that is rejected by the main principle of our logic -

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۱- Al-Kawn wal-Fasad, pp. ۱۶۸-۹.

۲- Ibid., p. ۱۵۴.

contradiction then will be something that no healthy mind can accept. Marxism does not have any example whatsoever of contradiction in this sense from nature or the phenomena of existence. All the alleged contradictions of nature that Marxism offers us are not related to the dialectic in any way.

Let us present a number of such examples by means of which Marxism intended to prove its dialectical logic, so that we can see the extent of its weakness and failure to demonstrate its own logic.

a. The contradictions of motion

(The following is a passage from Georges Lefebvre:(١

When nothing goes on, then there is no contradiction. Conversely, when there is no contradiction, nothing happens, nothing exists, no appearance of any activity is noticed, and nothing new emerges. (p. ٢۶۴) Whether the matter is related to a state of stagnation, to a temporary equilibrium, or to a moment of flourishing, the being or (thing that is not self-contradictory is temporarily in a state of rest.(٢

:Also, we quote from Mao Tse-tung

A proposition with general contradiction or with the absolute existence of contradiction has a dual meaning. The first is that contradiction exists in the process of the development of all things. The second is that from the beginning to the end of the development of everything, there is a movement of opposites. Engels says that (movement itself is contradictory.(٣

These texts make it clear that Marxism upholds the existence of opposition between the law of development and completion and the law of non-contradiction. It believes chat development and

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١ - Georges Lefebvre, French historian (١٨٧۴-١٩۵٩). His contribution is mainly in the socio-economic field. He studied the agrarian history of the French Revolution. His main writings are: The Agrarian Question during the Reign of Terror (translated into .Russian in ١٩٣۶), The French Revolution and A Study of the French Revolution

٢- Karl Marx, p. ۵٨

٣- .Hawl at-Tanaqud, p. ١٣

completion are not achieved except on the basis of continuous contradiction As long as development and motion are realized in the realm of nature, one must put aside the idea of non-contradiction and take up the dialectic, which will explain to us motion .in its various forms and kinds

Previously (when we studied the movement of development), we touched upon the fact that development and completion are not at all incompatible with the principle of non-contradiction, and that the idea that asserts incompatibility between the two rests on the confusion between potentiality and actuality. At every stage, motion is an .affirmation in actuality and a negation in potentiality

Thus, when the germ of a living being develops in the egg until it becomes a chick, and the chick becomes a chicken, this development does not mean that the egg is not in its first stage an egg in actuality. (p. ۲۶۵) Indeed, it is an egg in actuality and a chicken in .potentiality; that is, it can become a chicken

Therefore, the possibility for a chicken and the character of an egg, and not both the character of the egg and the character of the chicken, unite in the essence of the egg. In fact, we know more than this, namely, that the movement of the development cannot be understood except in light of the principle of non-contradiction. If it were truly possible for contradictories to come together in the essence of a thing, there would be no change, and the

p: ۳۱۸

thing would not be transformed from one state to another. Consequently, there would .be no change and no development

If Marxism wishes to show us that the process of motion involves contradiction that is truly incompatible with the principle of noncontradiction, let it then provide an example of development that involves and does not involve motion - that is, in which .both negation and affirmation are applicable to the development

Is it permissible for Marxism, after it had rejected the principle of non-contradiction, to assert that a thing develops and does not develop at the same time? If this were permissible, let Marxism then show us an instance of it in nature and existence. If, on the other hand, this were not permissible, it would be nothing but an admission of the .principle of non-contradiction and of the rules of the metaphysical logic

b. The contradictions of life or of a living body

:Concerning this,] Georges Lefebvre tells us the following]

In spite of this, it is not clear that life is birth, growth, and development? Still, a living being cannot grow without changing and developing, i.e. without ceasing to be what he was. In order for him to become a man, he must abandon and lose adolescence. Everything that necessarily accompanies rest declines and falls behind . . . Every living being, therefore, struggles against death, for he carries his death within himself.(۱) (p. ۲۶۶)

:We also quote the following passage from Engels

We have seen earlier chat the essence of life is chat a living body is ac every moment itself; while at

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Karl Marx, p. ۶۰ -۱

the same moment, it is not itself, i.e. it is something other than itself. Life, therefore, is (a contradiction fixed in the beings and processes themselves.(۱

There is no doubt that a living being undergoes two renewable processes: life and death. As long as these two processes perform their function, life continues. But this does not involve any contradiction. The reason is that if we analyze these two processes, and, to begin with, add them to one living being, we know that the process .of death and that of life do not meet in one subject

A living being receives new cells at every stage and leaves behind disintegrated cells. Death and life partition the cells [of that being]. The cell that dies at one moment is other than the cell that exists and lives at that particular moment. This is how the living being at large remains held together; for the process of life replaces in him the dead cells with new cells. Thus, life continues until its possibilities are exhausted and .its light is extinguished

Rather, contradiction obtains if death and life cover all the cells of the living being at a specific moment. But this is not what we know about the nature of life and living beings. A living being does not carry within himself other than the possibility of death, and the possibility of death does not contradict life. Rather, what contradicts life is .actual death

c. The contradiction in people's capacity for knowledge

In his presentation of the principle of contradiction in the dialectic, Engels

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.Did Duharnak, p. ۲۰۳ -۱

(says: (p. ۲۶۷

As we have seen, contradiction, for example, between the genuine and unlimited human capacity for knowledge and the actual realization of this capacity in people who are restricted by their external circumstances and mental receptivity finds its resolution in the indefinite succession of generations in the endless advance, at least (with respect to us and, according to the practical point of view.(۱

In this, we find a new example, not of the principle of contradiction, but of the Marxist misunderstanding of the principle of non-contradiction. If it were true that people are capable of full knowledge, and of acquiring such knowledge by themselves, this will not confirm the dialectic, nor will it be a phenomenon that constitutes an exception to .the metaphysical logic and to the basic principle of this logic

Instead, it will be similar to our assertion chat the army is capable of defending the country, and that no member of the army has this ability. Is this contradictory, and is this something on whose rejection the metaphysical logic is based? Indeed, no. .Contradiction obtains between negation and affirmation if their subject is one

However, if affirmation deals with humanity as a whole, while negation deals with every individual independently - as in the example given by Engels - then there is no

.incompatibility between negation and affirmation

d. The contradiction in physics between the positive and the negative charges

This alleged contradiction involves two errors. The first is the consideration of the(۲) positive charge and the negative charge as belonging to the categories of existence and non-existence, (p.

.Ibid., pp. ۲۰۳-۴ -۱
Hawl at-Tanaqud, p. ۱۴ -۲

affirmation and negation [respectively] ; due to the fact that the scientific term for (۲۶۸ the former is 'positive charge' and for the latter 'negative charge', even though we know that these expressions are just technical physical terms.

This does not mean that both are two contradictories, as are non-positiveness and positiveness, or negation and affirmation. Thus, the positive charge is similar to the charge produced in the glass stick that is touched by a piece of silk. The negative charge is similar to the charge produced by the ion that is couched by the cat skin. Each of the two charges is a specific kind of electric charge. Neither of them is the existence of a thing, while the other the non-existence of that thing.

The second error is the consideration of attraction as a kind of union. On the basis of this, the relation of attraction between the positive charge and the negative charge was explained as one of contradiction. This contradiction was considered one of the dialectical phenomena, even though, in fact, the negative and the positive charges are not united in one charge.

Rather, they are two independent charges attracting each other, as the two different magnetic poles attract each other, without indicating the existence of one charge that is both positive and negative at the same time, or the existence of one magnetic pole that is both north and south. Thus, attraction between different charges (or repulsion

between similar charges] is a kind of interaction

p: ۳۲۲

.among external opposites that are independent in existence from one another

We learned earlier that interaction among external opposites is not at all dialectical and has no relation to the contradiction that is rejected by the metaphysical logic. The issue is one of two powers each influencing the other, and not an issue of a power .involving contradiction in its internal content, as the dialectic claims

e. The contradiction of action and reaction in mechanics

According to Marxism (and to Newton], the mechanical law that asserts that for(۱) every action, there is a reaction equal to it in quantity, and opposed to it in direction: [for every action, there is an equal and opposite reaction] is one of the phenomena of (dialectical contradiction (p. ۲۶۹

Once again, we find ourselves in need of emphasizing that this Newtonian law does not in any way justify dialectical contradictions; for action and reaction are two powers that exist in two bodies, and not two contradictories united in one body. Thus, the two rear wheels of a car push against the ground with force; this is the action. The ground, on the other hand, pushes the two car wheels with another force that is quantitatively equal and directionally opposite the first force; this is the reaction. By means of this, the car moves. Hence, the one body does not involve two contradictory forces, nor does its internal content undergo a struggle between negation and .affirmation or between one contradictory and another

Rather, the car pushes the ground in one direction, while the ground pushes

p: ۳۲۳

.Ibid., pp. ۱۴-۱۵ -۱

the car in another direction. The dialectic attempts to explain a thing's growth and

movement by two internal repelling forces or two internal contradictories at strife. Each struggles against the other, overcomes it and forms the thing [containing them] .in accordance with itself

Is this not different from two external forces of which one produces a specific action and the other a reaction? We all know that the two opposite forces produced by the action and the reaction are present in two bodies, and that it is impossible for them to be present in one body; they oppose and negate one another. This is so, only by virtue .of the principle of non-contradiction

:f. The contradictions of war discussed by Mao Tse–Tung in the following statement

Actually, in war, attack and defense, advance and retreat, victory and defeat are all contradictory phenomena. Neither one of the two [in any pair] can be present without the other. These two extremes struggle [against each other], as they unite with each other - thus forming the totality of war, imposing their development, and solving the (problems of war.(۱) (p. ۲۷۰

The truth is that this text is the strangest of all the above-mentioned texts. In it, Mao Tse-tung considers war as a real living being involving the two contradictories, victory and defeat, even though this notion of war is inappropriate except to a primitive .mentality that is accustomed to viewing things in a general framework

War, in philosophical analysis, is nothing but a multiplicity of events united in the ,manner of expression only. Victory is other than defeat

p: ۳۲۴

.Ibid -۱

a victorious army is other than a defeated army, and the methods or points of strength that prepare for victory are other than the methods or points of weakness that lead to defeat. The decisive results to which war leads are not due to a dialectical struggle and united contradictories, but to a struggle between two external forces of

.which one overcomes the other

:g. The contradictions of judgements discussed by Kedrov in what follows

Regardless(١) of the simplicity of a judgment and regardless of the ordinariness of that judgment, it contains seeds or elements of dialectical contradiction which move (and grow in the sphere of all human knowledge.(٢

:Lenin emphasizes this point saying

Beginning with any proposition, even with the simplest proposition or with the most ordinary and most common proposition, etc., such as: 'The tree leaves are green,' 'Ivan is a man,' 'Zhuchka is a dog,' and so on, also involves a dialectic. The particular is the general; that is, opposites (the particular is the opposite of the general) are .identical

But even here, there are primary principles, necessary notions, and an objective relation to nature, etc. The accidental, (p. ٢٧١) the necessary, the appearance, and the substance are all present here. Thus, when I say: 'Ivan is a man,' 'Zhuchka is a dog,' 'This is the leaf of a tree,' etc., I just reject a series of symbols, since they are accidental, I separate the surface from the substance, and I affirm opposition between the two. Similarly, in every proposition and in every cell, we can disclose all the elements

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.Ayyam -١

.Al-Mantiq ash-Shakliyy wal-Mantiq ad-Dialaktikiyy, pp. ٢٠-١ -٢

(of the dialectic.(١

But it is our right to ask Lenin about the attribute of generality that he ascribes to the meaning of the term 'man'. Is it an attribute of the idea that we form in our minds about the word 'man', or of the objective reality of this word? This question does not require much reflection, in order for one to attain the correct answer, which is as

.follows

Generality is an attribute of thought and not of reality. Our idea of the word 'man' constitutes a general notion that expresses many particulars having this name. Thus, Ivan is a man, Kedrov is a man, and Lenin is a man, in the sense that the idea that we have of the expression 'man' is the mental product that is common to these individuals. The objective reality of man; on the other hand, is always something .determined and limited

If we take this remark into consideration, we can then know that the contradiction in our statement: 'Ivan is a man' obtains only if we wish to judge our specific idea of Ivan as being the same as the general idea that we have of man. This is a clear contradiction and cannot be true at all. The reason is that the specific idea of Ivan cannot be the same general idea of man; otherwise, the general and the particular .would be the same thing as Lenin thought

Thus, if we take Ivan as a specific idea and man as a

.Ibid -١

general idea, we will find ourselves in contradiction when we try to unite the two ideas. (p. ٢٧٢) However, our statement, 'Ivan is a man', does not actually mean a union between the two ideas, but a union between the objective reality of the word 'Ivan' and the objective reality of the word 'man', in the sense that the two expressions are one objective reality. It is clear that the reality of man does not contradict the external reality of Ivan; rather it is one and the same with it. Therefore, the union between the .two does not involve a contradiction

Hence, it becomes clear that the contradiction, which is claimed by Marxism to exist in the proposition 'Ivan is a man' is based on a false interpretation of this proposition, which considers this proposition as a union between two ideas, one of which is .general and the other particular, and not between two objective realities

Once again, we inquire about this alleged contradiction in the proposition 'Ivan is a man'. What is its consequence, what is the struggle produced by it, and what is the development resulting from it? According to Marxism, the internal contradictions ignite the struggle and are considered as fuel for the development. How then can Marxism explain to us the manner in which the proposition: 'Ivan is a man' develops? ?Further, is it reduced to another form due to its contradictions

The conclusions we reach as a result of our study of the alleged dialectical contradictions is

that all the contradictions mentioned by Marxism in the fields of philosophy and science or in the general, ordinary sphere are not of the kind of contradiction rejected .by the basic principle of the metaphysical logic

Moreover, such contradictions cannot be considered as an evidence for refuting this principle. Rather, they are nothing but the 'opposites' of the Maltese Chrysippus(١) (٢,٠٠٠ years ago) to the principle of non-contradiction. Chrysippus(٢) responded to this principle as follows. If your father comes to you veiled, you do not recognize him. .Therefore, you know your father and you do not know him at the same time

But it is intuitive that these kinds of simple opposites cannot destroy the general (necessary principle of human thought: the principle of non-contradiction. (p. ٢٧٣

The truth that was evident to us from a number of examples of dialectical contradiction is the struggle and the interaction between external opposites. We have already learned that this kind of interaction between opposites is not one of the attributes of the dialectic. Rather, it is one of the assertions of metaphysics, as we .have learned from Aristotle's texts

If we wish to overlook the errors of Marxism in understanding contradiction, and its failure in the attempt to demonstrate the law of dialectics, we will still find that the dialectical contradiction does not give us an acceptable explanation of the world, nor

can it offer a sound justification, as we will point out in Chapter ۴ of this investigation, ."Matter or God

It is interesting to

p: ۳۲۸

Text: Ubulidas. We have not been able to identify any author by this name. We -۱ suspect though that the reference here is to Chrysippus who is said by Diogenes to .(have given the argument of the veiled father (Life of Diogenes, VII, ch. ۴۴ and ۸۲

.Text: Ubulidas -۲

point to an example of contradiction offered by one of the modern writers(۱) for the purpose of falsifying the principle of non-contradiction. He says that the principle of non-contradiction asserts that every quantity is either finite or infinite. It cannot be .both finite and infinite at the same time due to the impossibility of contradiction

If this is the case, then half a finite quantity is always finite. It cannot be infinite; otherwise, the sum of two infinite quantities would be finite. But this is impossible. :Thus, the chain containing the following quantities

۱; ۱/۲; ۱/۴; ⅛; ۱/۱۶; ۱/۳۲

where each quantity has half the previous quantity), every part of this chain must be) finite, regardless of the length of the chain. If the chain is infinite, we will have an infinite succession of quantities every one of which is finite. Thus, the sum of the parts of the chain (p. ۲۷۴) would then be the sum of an infinite number of finite quantities. That is why it must be infinite. However, a little knowledge of mathematics shows us (that it is finite, since it is ۲.(۲

Thus, this writer wishes to conclude that the contradiction between the finite and the infinite permits the two contradictory poles to unite in one quantity. But he misses the point that the infinite quantity in his example is other than the finite quantity. Thus, there is no contradiction. It is not the case that one quantity is both finite and infinite in

spite of the

.Al-Mas'ala al-Falsafiyya, Muhammad 'Abd ar-Rahman Marhaba, p. ١٠٣ -١
.It never reaches ٢, it approaches ٢ -٢

.principle of non-contradiction, as this modern writer attempts to conclude

We can consider the quantities that he supposes in this chain, of which each has half the previous quantity, inasmuch as they are units, and count them as we would count the units of nuts, or as we would count the rings of a long iron chain. In this case, we will face an infinite number of units. Thus, the complete number (١) is the first unit; while the fraction (١/٢) is the second unit. Further, the fraction (١/۴) is the third unit. In this way, the sum is increased one by one to infinity. Therefore, while adding these numbers, we are not faced with something like the units of (٢). Rather, we are faced with an enormous, infinite number. If, on the other hand, we wish to add the .quantities symbolized by these numbers, we will then get (٢) only

This is because the mathematical sum of those deficient quantities is just that. The infinite, therefore, is the quantity of the same numbers that can be added inasmuch as they are units that we add to each other, as we add a pencil to a pencil or a nut to a nut. But the finite is not the quantity of the numbers that can be added inasmuch as they are units and things that can be added, but the quantities that are symbolized by .those numbers

In other words, there are two quantities. One of them is the quantity of

the same numbers inasmuch as they are units; while the other is the quantity of what is mathematically symbolized by them, due to the fact that every number in the chain symbolizes a certain quantity. The first is infinite, and it is impossible that it be finite. (The second is finite, and it is impossible that it be infinite. (p. ٢٧۵

point

Movement and contradiction, the two dialectical points that we have criticized in detail, together constitute the law of dialectical movement or the law of contradictory movement whose development is based, constantly and always, on the dialectical .principles

Marxism has adopted this law as an eternal law of the world. Its purpose was to exploit this law in the political sphere for its own interest. Thus, political action was the first goal that required Marxism to cast this law in a philosophical form that helps it construct a new policy for the whole world. This was stated by Marx somewhat carefully: 'Philosophers have done nothing other than interpreted the world in various (ways. But the issue is one of its development.'(١

The issue, therefore, is the suggested political development that must find a logic to justify it and a philosophy on whose principles it rests. That is why Marxism put forth the law that agrees with its political plans, and then sought for evidence for this law in the scientific fields, convinced in advance and before any evidence that it is necessary to adopt this law, as long as this law sheds

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.Karl Marx, p. ٢١; Hadhih Hiya ad-Dialaktikiyya, p. ٧٨ -١

.some light on the path of action and struggle

On this occasion, we must listen to Engels discussing the research he carried on in his :book, Anti-Duhring

Needless to say, I had resorted to a quick and brief presentation of the subjects (p. ٢٧۶) of mathematics and natural science for the purpose of acquiring peace of mind regarding the details of what I had not doubted in general, [namely] that the same dialectical laws of movement that govern the apparent spontaneity of events in

history also pave their way in nature.(1)

In this text, Marxism summarizes for us its method in its philosophical attempts, the manner of its confidence in discovering the laws of the world and accepting them before it realizes the extent of their actuality in the scientific and mathematical fields.

After that, it was careful to apply these laws to those fields and to subjugate nature to the dialetic in a quick presentation, as Engels says, regardless of the cost that this may incur, and despite the protest of mathematicians and natural scientists themselves that this may cause. This is admitted by Engels in a phrase close to the text quoted above.

Since the basic aim of constructing this new logic is to arm Marxism with a mental weapon in its political battle, it was, therefore, natural for Marxism to begin -primarily and before anything else - by applying the dialectical law to the political and social spheres, thus, it explained society, including all its parts, in accordance with the

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١- Did Duharnak: al-iqtisad as-siyasiyy, p. ١٩٣.

law of contradictory movement or the moving contradiction.

It subjugated society to the dialectic that it claims to be the law of both the mind and the external world. Therefore, it assumed that society develops and moves in accordance with the class contradictions that are internal to society. At every stage of development, society takes on a new social form that agrees with the dominant class in society.

Subsequently, struggle begins again on the basis of (p. ٢٧٧) the contradiction is involved in that form. As a result of this, Marxism concluded that the analysis of the social content of capitalistic society is struggle between the contradictories that this society involves - that is, between the working class on the one hand and the capitalistic class on the other hand.

This struggle provides society with the developmental movement that will dissolve the capitalist contradictions when the leadership is handed to the working class represented by the party that was established on the basis of dialectic materialism, that can adopt the interests of the working class with a composed scientific method.

At the present, we do not wish to discuss the Marxist dialectical explanation of society and its development, an explanation that collapses naturally, so that we can criticize and falsify the dialectic as a general logic, as has been determined in this study. We will reserve a detailed critical study of historical materialism in Our Society or in Our Philosophy.(۱)

Rather, what we intend at the present is to clarify an

p: ۳۳۳

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۱ - Our Economics has already been issued. It includes one of the most extensive studies of historical materialism, in light of the philosophical principles and the general course of human history in real life.

important point in this social application of the dialectic that relates to the dialectic itself in general. This point is that the social and political application of the dialectic in the manner pursued by Marxism leads to an immediate refutation of the dialectic.

If the developmental movement of society derives its necessary fuel from the class struggle between contradictories contained in the general social structure, and if this contradictory justification of motion is the only explanation of history and society, then, in the last analysis, motion would inevitably come to rest.

Also, the differences between contradictories and between the motion spans of contradictories come to rest and frozenness; for Marxism believes that the stage which is produced on the basis of such contradictories, and to which it seeks to lead the march of the human race, is the stage (p. ۲۷۸) in which classes are abolished and society becomes one class. If the variety of classes in the suggested socialist society is abolished, the blaze of conflict is extinguished, the contradictory movements

completely disappear, and society reaches a fixed stability from which it does not .diverge

The reason for this is that the only fuel for social development, according to Marxism, is the myth of class contradiction that the development invents. Thus, if this contradiction is removed, that would mean the liberation of society from the influence of the dialectic; and thus, disputation would abandon the position of controlling and .governing the world

We know, therefore, that the Marxist explanation of social

development on the basis of class contradiction and dialectical principles leads to a complete halt of this development. But the contrary holds true if we place the blaze of development or the fuel of movement in awareness or thought, or in anything other than class contradiction that Marxism considers as a general source of all .development and movement

Is it not appropriate after all this to describe the dialectical explanation of history and society as the only explanation that imposes frozenness and fixedness on mankind, and not the explanation that places the source of development in a resource that ?never dries up - namely, awareness in its various kinds

Add to this the frozenness that Marxism itself produced and that afflicted the human mental dialectic of which Marxism is proud, when the dialectic and the infinity of the world were taken as absolute truths, and when the state adopted the dialectic as an official doctrine above any discussion and debate, and as a final reference to which all science and knowledge must be subjugated. Any thought or mental effort that is not .in harmony with it and that does not begin with it must be stopped

Thus, human thought in the various fields of life fell captive to a specific logic. All the intellectual talents and capacities were pressed into the circle that was designed for (mankind by the official philosophers of the state. (p. ۲۷۹

In future chapters, God willing, be He exalted, we will discuss how we can abolish the myth

of class contradiction, how we can lift the curtain to show the fallacies of the Marxist disputation in specifying the contradictions of ownership, and how we can give a sound explanation of society and history.(۱)

The Leaps of Development

Stalin tells us the following:

Contrary to metaphysics, the dialectic does not consider the movement of development as a simple movement of growth in which quantitative changes do not lead to qualitative changes. Rather, it considers it as a development that moves from small and hidden quantitative changes to expressed and basic changes, i.e. to qualitative changes.

These qualitative changes are not gradual; but fast and sudden. They happen by leaps from one stage to another. It is not [only] possible that these changes occur; they are necessary. They are the result of an accumulation of non-sensible and gradual quantitative changes. That is why, according to the dialectical method, it is necessary to understand the movement of development, not inasmuch as it is a circular movement or a simple repetition of the same procedure, but inasmuch as it is a linear progressive movement and a transmission from a previous qualitative stage to a new qualitative stage.(۲)

The dialectic asserts in this point that the dialectical development of matter is of two kinds: (p. ۲۸۰) one of them is a gradual quantitative change that occurs slowly. The other is a sudden qualitative change that occurs at once as a result of the gradual quantitative changes. This means that when the qualitative changes reach the point of transition, they

۱- See Our Economics, by the author.
۲- Al-Maddiyya ad-Dialaktikiyya wal-Maddiyya at-Tarikhiyya, pp. ۸-۹.

are then transformed from a certain quantity to a new quality.

This dialectical development is not a circular motion of matter in which matter returns to its same source. Rather, it is a motion of completion that is constantly and continuously ascending.

If one objects to Marxism at this point, saying that nature may have circular motion, as in the fruit which develops into a tree, and consequently goes back to being a fruit as it was, Marxism responds as follows: This motion is also one of completion; and is not circular, as the motions that are drawn by the compass.

However, the completion in it is due to the quantitative and not to the qualitative aspect. Thus, even if the fruit goes back in its linear march to being a fruit once again, still it will achieve a quantitative completion. The reason is that the tree that was produced by one fruit branches out into hundreds of fruits. Thus, there is never a return to the [original] motion.(۱)

To begin with, we must notice the purpose that lies behind this new dialectical point. We had learned that Marxism posited the practical plan for the required political development, and then sought for the logical and philosophical justification of that plan. What then is the plan for which this dialectical law was constructed?

It is very easy to answer this question. Marxism saw that the only thing that can pave the way for its political control or for the political control of the interests

۱- i.e., to the original state.

it adopts is a conversion. Thus, it went on to search for a philosophical justification of

such a conversion. It did not find this justification either in the law of motion (p. ۲۸۱) or in the law of contradiction. This is because these two laws require society to develop .in accordance with the contradictions that unite in it

The principle of contradictory motion is not sufficient for clarifying the method and immediacy of development. That is why it became necessary to posit another law on which the notion of conversion rests. This was the law of the leaps of development .that asserts the immediate transformation of quantity into quality

On the basis of this law, conversion became not only possible, but necessary and unavoidable in accordance with the general laws of the universe. Thus, the gradual quantitative changes in society are converted in great historical turns to a qualitative change. Hence, the old qualitative form of the general social structure is destroyed .and changed into a new form

Therefore, it becomes necessary, and not only good, that the contradictions of the general social edifice result from a sweeping principle of conversion, according to which the class that was previously in control, and that became secondary in the contradiction process, be removed and sentenced to destruction, so that the new contradictory that has been nominated by the internal contradictions to be the main .side in the contradiction process will have the opportunity to be in control

:Both Manx and Engels say

Communists do

p: ۳۳۸

not come close to hiding their views, intentions, and plans. They declare with frankness that their purposes cannot be attained and realized except through the (destruction of the whole traditional social system by violence and force.(۱

(Also, Lenin says: (p. ۲۸۲

The proletariat revolution is not possible without destroying by violence the

(bourgeoisie system of the state.(۲

After Marxism posited the law of the leaps of development, it had to give a number of examples, 'presenting them in a quick manner', as Engels says, so that it can demonstrate by means of them the alleged law in its general and particular cases. This is exactly what Marxism did; it gave us a number of examples on which it based .its general law

One of the examples that Marxism gave of this law is that of water when placed on the fire. The temperature rises gradually. Due to this gradual rise, slow quantitative changes occur. At first, these changes do not have any effect on the state of the water inasmuch as it is a fluid. However if its temperature rises to ۱۰۰ degrees [centigrade], then at that moment, it will shift from the state of fluidity to that of vapor.(۳) Quantity is changed to quality. Similarly, if the temperature of water falls to (zero [centigrade], the water will immediately change to ice.(۴)(۵

Engels presents other examples of the dialectical leaps from the organic acids in chemistry, of which every one has a specific degree [of temperature] at which it melts or

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.Al-Bayan ash-Shuyu'i, p. ۸ -۱

.Usus al-Lininiyya, p. ۶۶ -۲

It must be mentioned that this is so only under normal pressure (۷۶ centimeters of -۳ .(mercury

.i.e., only if water is not completely pure and is under constant normal pressure -۴

Did Duharnak, pp. ۲۱۱-۱۲; al-Maddiyya ad-Dialaktikiyya wal-Maddiyya at- - ۵ .Tarikhiyya, p. ۱۰

.boils. By virtue of reaching that degree, the fluid leaps to a new qualitative state

Thus, formic acid, for example, boils at ۱۰۰ degrees [centigrade]. But it melts at (p. ۲۸۳) ۱۵ degrees [centigrade]. Acetic acid boils at ۱۱۸ degrees [centigrade]. Its melting point,

on the other hand is ١٧ degrees [centigrade], and so on.(١) Thus, in boiling and melting, the hydrocarbonic compounds operate in accordance with the law of immediate leaps .and transformations

We do not doubt that the qualitative development of a number of natural phenomena happens by instantaneous leaps, as does the development of water in the previously mentioned scholastic example or the development of the organic or carbonic acids in the two states of boiling and melting, as well as (the development of] all other compounds whose nature and qualities are dependent on the proportions from which (each is composed.(٢

But this does not mean that it is always necessary in all fields that the development take a leap in specific stages, so that it be a qualitative development. Giving a number of examples is not sufficient for demonstrating scientifically or philosophically the necessity of these leaps in the history of development, especially when Marxism selects such examples and neglects those examples that it used for clarifying another .dialectical law, only because they are not in agreement with this new law

Marxism had represented the contradictions of development in the living germ inside the egg that tends to become a chick,(٣) and in the seed that involves

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١- Did Duharnak, p. ٢١۴.

٢- But these phase changes from solid to liquid to vapor are not strictly we in any of the compounds cited.

٣- Hadhih Hiya ad-Dialaktikiyya Mabadi' al-Falsafa al-Awwaliyya, George Politzer, p. ١٠.

.its contradictory, thus developing and becoming a tree due to its internal conflict

Is it not our right to ask Marxism to reconsider these examples, so that we would know how it can explain for us the leaps of development in these examples? Is the seed's becoming a tree or the germ's becoming a chick (the development of the thesis

into an antithesis) or the chick's becoming a chicken (the development of the antithesis into a synthesis) produced by one of the dialectical leaps, thus changing the germ at once into a chick, the chick into a (p. ۲۸۴) chicken, and the seed into a tree, and ?that such transformations occur by a gradual linear motion

Even in the chemical elements that are liable to melt, we find both kinds of changes together. As change occurs in these elements by a leap, it may also occur in agradual manner. We know, for example, that the crystal elements change from the state of solidity to the state of fluidity suddenly, such as the ice that melts at a temperature of ۸۰ degrees [centigrade]. At that point, the ice changes immediately into a fluid.

The non-crystal elements, such as glass and honeywax are the converse of this; they do not melt and do not change qualitatively at once. Rather, their melting occurs gradually. Thus, the temperature of the wax, for example, rises during the process of melting, so that if it reaches a certain degree, the solidity of wax is weakened. The wax begins

to become, gradually and independently of other things, more flexible and malleable. In the state of flexibility, it [changes] gradually; it is neither solid nor fluid. This .continues until it becomes a fluid element

Let us take another example from social phenomena - namely, language as a phenomenon that develops and changes and that is not subject to the law of the dialectic. The history of language does not tell us anything about the immediate .qualitative changes of language in its historical march

Instead, it expresses gradual transformations of language with respect to quantity and quality. If language were subject to the law of leaps, and if the gradual quantitative changes were transformed into a decisive and immediate change, we would have been able to grasp decisive points in the life of language, in which language changes from one form to another due to the slow quantitative changes. But this is something not true of any language that people have adopted and

.employed in their social life

Therefore, in light of all the natural phenomena, we are able to know that a leap and immediacy are not necessary for qualitative development. Further, as development (may be immediate, it may also be gradual. (p. ۲۸۵

Let us now take the previously mentioned scholastic example - of water in its freezing and boiling [states]. We notice the following. First, the developmental movement in the example is not dialectical, for experimentation does not demonstrate that this ,development is a result of the internal contradictions of water

p: ۳۴۲

as the contradictions of the dialectical development require. We all know that were it not for the external temperature, water would remain water and would not change to vapor. Thus, the conversional development of water is not achieved in a dialectical fashion. If we wish to consider the law that governs the social conversions as the same law according to which the immediate conversion of water or of all chemical compounds occurs (as Marxism assumes), this would lead to a result different from .that intended by Marxism

The reason is this. The developmental leaps in the social system become conversions caused by external factors, and not. by the mere contradictions contained in the same system. The attribute of inevitability would no longer pertain to those leaps. Those .leaps would not be necessary if the external factors are unavailable

It is clear that as we can preserve the state of the fluidity of water, and distance the water from the factors that make it leap to the state of vapor, we can also preserve the social system and distance it from the external factors that necessitate its destruction. Therefore, it becomes clear that the same application of the law of tire dialectic to the immediate development of water in its boiling and freezing, and to society in its conversions, registers conclusions contrary to those expected by the .dialectic

Second, the developmental movement of water is not linear. Rather, it is a circular movement in which water changes into vapor and vapor returns to

its original state, without producing a quantitative or a qualitative completion. If this movement is considered (p. ۲۹۶) dialectical, this would mean that it is not necessary for the movement to be linear and always progressive. Also, is would rust be irritable that the dialectical development in the natural or social realm be ore of completion .and progression

Third, the same leap of water to vapor achieved by the temperature's reaching a certain degree must not cover all the water at once. Every human being knows that various quantities of the waters of the seas and oceans evaporate gradually. It is not .the case that all of such waters make a one-time leap to the state of vapor

This shows that the qualitative development in the areas in which this development is immediate does not necessarily cover the developing being as a whole. Rather, this development may begin in the parts of that being leaping with them to the state of vapor. The leaps follow consecutively, and the drives are repeated until the whole is transformed. The qualitative transformation may not be able to cover the whole, thus remaining limited to ate parts in which the external conditions of the conversion are .met

If this is all that s meant by the dialectical law with respect to nature, why then should the leap in the social sphere be imposed on the system as a whole? Also, why should it be necessary, according to the natural law of society, to destroy the social structure

?at every stage through a comprehensive and an immediate conversion

Further, why should it be that the alleged dialectical leap in rte social sphere cannot adopt the same method is adopts in the natural sphere - thus not affecting anything other than the aspens in which the conditions of the conversion are met, and then

?moving gradually, until the general transformation is at last achieved

Finally, the charge of quantity into quality cannot be faithfully applied to the example of the water chat is transformed into vapor or ice, in accordance with the rise or fat in the degree of the temperature of water, as Marxism thought. This is because Marxism considered temperature as a quantity and vapor and ice as qualities. Thus, it .affirmed that quantity in this example changes into quality

This Marxist notion of temperature, vapor and ice has no (p. ٢٨٧) foundation, for the quantitative expression of temperature used by science in its assertion that the temperature of water is ١٠٠ degrees or ۵ degrees, (for example,) is not the essence of temperature. Rather, it is an expression of the scientific method for reducing the natural phenomena to quantities, in order to facilitate their regulation and .determination

Thus, on the basis of the scientific method of expressing things, it is possible to consider temperature as a quantity. But the scientific method does not only consider .temperance as a quantitative phenomenon

Rather, the transformation of water into vapor, for example, is also expressed quantitatively. It is exactly like

p: ٣۴۵

temperature in being a quantitative phenomenon in the scientific language. This is because science determines the transformation from the state of fluidity to that of vapor by a pressure that can be measured quantitatively, or by relations and properties of atoms that can also be measured quantitatively, as is the case with .temperature

Therefore, from the point of view of science, the above example does not have anything but quantities that change to one another. From the empirical point of view, on the other hand - that is, the idea of temperature that sense perception provides when we immerse our hand in water, or the idea of vapor that sense perception

provides when we see water change into vapor -temperature is a qualitative state as is vapor, this state disturbs us when the temperature is high. Hence, quality changes .into quality

Therefore, we find that water in its temperature and evaporation cannot be given as an example of the transformation of quantity into quality, except if we contradict ourselves, thus considering temperature from the scientific point of view, and the .state of vapor from the empirical point of view

Finally, it is appropriate for us to close this discussion of the leaps of development with the example of this kind of development given by Marx in his book Capitalism. Marx mentions that not every quantity of money can be transformed haphazardly into capital. Indeed, in order for such transformation to occur, it is necessary that the individual owner of the money had

p: ٣۴۶

acquired prior to that point a minimum amount of money that gives him the .opportunity for a life twice [as comfortable as] that of the ordinary worker

This depends on his ability to employ eight workers. (p. ٢٨٨) Marx cried to clarify this point in light of his main economic notions of the surplus value, the transformable capital and the fixed capital. Thus, he took as an example the worker who works eight hours for himself - that is, for producing the value of his salary - and, subsequent to that, works four hours for the capitalist to produce the surplus value that the owner of .the money gains

The capitalist is necessitated under such a circumstance to have at his disposal a certain amount of money sufficient to enable him to supply two workers with the raw material, tools for work and salaries, so that he can make a daily surplus value .sufficient to enable him to have the same kind of food that one of his workers has

However, since the purpose of the capitalist is not only to have food but also to increase his wealth, this producer with two workers remains a non-capitalist. In order

for him to have a life twice [as comfortable as] that of the ordinary worker, he must be able to employ eight workers in addition to transforming half the resulting surplus .value into capital

Finally, Marx comments on this, saying that in this, as in the natural science, the soundness of the

p: ۳۴۷

law discovered by Hegel - namely, the law of the transformation of quantitative changes into qualitative changes - is confirmed when the quantitative changes reach (a certain limit.(۱

This Marxist example shows clearly the extent of tolerance exhibited by Marxism in presenting examples of its alleged laws. Even though tolerance in every area is a good and a virtue, it is an unforgivable shortcoming in the scientific field, especially when the purpose is to discover the secrets of the universe, in order to construct a (new world in light of such secrets and laws. (p. ۲۸۹

Indeed, we do not wish at the present to discuss the actual economic issues on which the above example rests, such as the issue that is related to the surplus value and the Marxist notion of the capitalist profit. Rather, we are concerned with the philosophical application of the law of leaps to capital. Let us, therefore, close our eyes to other .[aspects, directing our attention to a study of this aspect [only

Marx holds that money passes through simple and gradual quantitative changes. If the capitalist profit reaches a certain limit, an essential conversion or a qualitative transformation occurs immediately. The money becomes capital. This limit is twice as much as the salary of the ordinary worker, after half [the surplus value] is .transformed once again into capital

Unless the money reaches this limit, it will not have the basic qualitative change, nor will it be capital. 'Capital', therefore, is an expression given by Marx

p: ۳۴۸

.Did Duharnak, p. ۲۱۰ -۱

to a specific amount of money. Every human being is completely free to have his own .[application and usage [of language

Thus, let us take this Marxist usage as correct. Still, it is incorrect and does not make sense philosophically to consider the money's attainment of this specific limit as a qualitative change of the money and a leap from one quality to another. The money's attainment of this limit does not mean anything other than a quantitative increase. No qualitative transformation of the money is produced other than what is always .produced by the gradual quantitative increases

If we wish, we can go back to the previous states of the development of the elements of money in its consecutive quantitative changes. If the individual owner has had the money that would make it possible for him to supply seven workers with their ?equipment and salaries, then what would his profit be according to Marx

According to the Marxist calculations, his profit would be a surplus value equal to the salaries of three-and-a-half workers; that is, what is equal to twenty-eight hours of work. Because of this, he is not a capitalist, for if half the surplus value is transformed into capital, not enough of it remains that can secure for him twice the salary of one of .the workers

If we suppose an increase in the simple value of the money that the owner has, such that it becomes within his ability to purchase, in addition (p. ۲۹۰) to what he

had already owned, the efforts of half a day of a worker who works for him six hours, and for somebody else another six hours, he would then gain from this worker half what he gains from the work of every one of the other seven workers. This means that his profit will be equal to thirty hours of work and will enable him to have a salary .better than what he had before

Again, we repeat the assumption. We can imagine the owner, who can as a result of the new additional amount of his money, purchase from the eighth worker three-quarters [of an hour], thus leaving the worker with no relation to another employer, except in the amount of three hours. Do we face at this point any increase in the amount of profit and in the owner's living standard other than what we had faced at ?the point of the occurrence of the above quantitative change

Suppose that the owner is able to enlarge his money by adding a new amount that allows him to purchase from the eighth worker all his daily input. What would happen then to the increase in the surplus value and living standard other than what used to happen as a result of the previous quantitative increases? Indeed, one thing occurs to .the money that had not occurred on the previous occasions

This is something related only to the aspect of utterance - namely, that Marx had not given this money the name

p: ٣٥٠

of capital. But now it is appropriate to call it by this name. Is this the change in kind and the transformation in quality that occurs to the money? Further, is the whole distinction between this stage of the money and the previous stages a point of pure utterance, such that if we had applied the expression 'capital' to a previous stage, ?then a qualitative change would have occurred at that time

The General Linkage

:Stalin asserts the following

Contrary to metaphysics, the dialectic does not consider nature as an accidental accumulation (p. ٢٩١) of things or events, of which some are separate, isolated, or independent from some others. Rather it considers nature as one firm whole in which things and events are linked together organically and dependent on one another. (Some of these things and events serve as mutual conditions for some others.(١

Nature, with its various parts, cannot be studied in accordance with the dialectical

method when these parts are separated from one another and stripped of their circumstances and conditions, as well as of any past or present thing that pertains to their reality, contrary to metaphysics that does not view nature as a net of linkage and conjunction, but from a purely abstract perspective. Thus, according to the dialectical notion, no event makes sense if isolated from the other events that surround it, and if studied in a purely metaphysical fashion.

Indeed, if unjustified accusations against a certain philosophy were sufficient to eliminate that philosophy, then the accusations that Marxism makes against

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۱- Al-Maddiyya ad-Dialaktikiyya wal-Maddiyya at-Tarikhiyya, p. ۶.

metaphysics in this new point would suffice to destroy metaphysics and refute its isolationist view of nature that contradicts the spirit of firm linkage among the parts of the universe.

But let Marxism tell us who is in doubt about this linkage, and which metaphysics does not accept it, if it is stripped of the points of weakness that represent it as having a dialectical character, and if it rests on a firm philosophical basis of the principle of causality and its laws, for the study of which we have reserved the third chapter of this investigation.

According to the general view of the universe, events cannot be except one of three kinds:

First, they are either an assembly of accumulated coincidences, in the sense that every event occurs by pure chance, without there being (p. ۲۹۲) any necessity that requires its existence. This is the first perspective. Second, the parts of nature are essentially necessary. Every one of them exists by virtue of its own essential necessity without need for, or influence, by anything external. This is the second perspective. Neither of the above perspectives is in harmony with the principle of causality, according to which every event is linked in its existence to its specific causes

and conditions. The reason is that this principle rejects the coincidence and chance of .events, as it rejects their essential necessity

Consequently, according to this principle, there is another perspective of the world. It is this. Third, the world is considered as completely

linked together in accordance with the principle and laws of causality. Every part of the world occupies the specific place in the universe required by the conditions of its .existence and the assembly of its causes

This is the third perspective that establishes metaphysics on the basis of its own understanding of the world. That is why it is asked: 'Why does the world exist?' This is one of four questions(١) the proper answer to which is required, according to the (metaphysical logic, for the scientific knowledge of anything. (p. ٢٩٣

This clearly means that metaphysics does not at all admit the possibility of isolating the event from its environment and conditions, or not extending the question to the .event's relations to other events

The assertion of general linkage is not, therefore, dependent on the dialectic. Rather, it is one of those things to which the philosophical principles established by .metaphysics in the investigation of causality and its laws necessarily lead

The designs of this linkage among the parts of nature and the disclosure of its details and secrets are matters that metaphysics leaves for the various kinds of science. The general philosophical logic of the world lays out the main point only. It establishes its linkage theory on the basis of causality and its philosophical laws. It remains for science to explicate the details of the fields that are accessible to the scientific methods, and to clarify the kinds of actual linkage and the secrets of these kinds, thus giving every point

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The four questions are as follows: 'What is it?' 'Does it exist?' 'What is it like?' 'Why -١ is it?' For the sake of clarification, we will apply these questions to one of the natural phenomena. Let us take heat and apply these questions to it. 'What is heat?' By this question, we seek an explanation of the specific notion of heat. Thus, we answer this question, for example, (by saying) that heat is a form of power. 'Does heat exist in nature?' Our answer is of course in the affirmative. 'What is heat like?' In other words, what are the phenomena and properties of heat? The answer to this question is given by physics. Thus, it is said, for example, that among the properties of heat are warming, expanding, contracting, changing some natural characteristics of matter, etc. Finally, 'Why does heat exist?' This question is attributed to an interest in understanding the factors and causes that lead to heat, and the external conditions on which heat depends. The answer, for example, is that the earth derives the power of heat from the sun, and then emits it, etc. With this, you know that the metaphysical logic places the issue of the linkage of a thing to its causes and circumstances in the same class as the other main issues concerned with reality, existence, and properties .of this thing

.its due

If we wish to be just to both the dialectic and metaphysics, we must point out that the novelty that the Marxist dialectic introduced is not the general law of linkage itself, of which metaphysics had already spoken in its own way and which is at the same time clear to all and is not subject to discussion; rather, Marxism was the first to advocate the political aims or the political applications of that law which gave Marxism the possibility of carrying out its plans and designs. Thus, the point of innovation is related to the application and not to the law, with respect to its logical and philosophical .aspect

On this occasion, let us read what was written by the Marxist author Emile Burns(١) .concerning the linkage according to the Marxist view

(He says: (p. ٢٩۴

Nature or the world, including human society, was not formed out of distinct things

that are completely independent of one another. Every scientist knows this and finds it extremely difficult to determine the causes even of the main factors that affect the specific things chat he studies. Water is water; but if its temperature is raised to a certain degree, then water is transformed into vapor. If, on the other hand, its temperature is lowered [to a certain degree], then it becomes ice. There are also .other factors that affect water

Further, every common person realizes, if he or she experiences things, that there is nothing which is completely independent by itself, and that

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۱- Emile Burns, British Marxist (۱۸۹۹-).

.everything is influenced by other things

:[He continues]

This linkage among things may appear intuitive, such that every cause that turns one's attention to it is evident. However, the truth is this. People do not always apprehend the linkage among things, nor do they apprehend that what is real under .specific circumstances may not be so under other circumstances

They always apply notions that they have formed under specific circumstances to other circumstances that are completely different from the former circumstances. The best example that one can give in this regard is the point of view concerning the freedom of speech. Freedom of speech in general serves the purpose of democracy and helps people express their will. That is why it is useful for the development of .society

However, the freedom of speech of fascism (the foremost principle that attempts to suppress democracy) is something very different, since is stops the progress of society. Regardless of the repetition in calling for the freedom of speech, what is true of it under normal circumstances with respect to the parties that seek democracy, (p.

(۲۹۵) is not true with respect to the fascist parties.(۱)

This Marxist text admits that the general linkage is understood by every scientist, indeed by every common person who has experienced things, as Emile Burns asserts, and is not something new in the general human understanding.

Rather, the novelty is what Marxism sought from this (linkage], by virtue of the extent of the solid linkage between the issue of the

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۱- Ma Hiya al-Marxiyya, pp. ۷۵-۶.

freedom of speech and other issues that it considered. The same is true of a number of ocher similar applications that we can find in a group of other Marxist texts. Where then is the powerful logical disclosure of the dialectic?

Two Points concerning the General Linkage

In pursuing this discussion about the theory of general linkage in metaphysics, it is necessary to point out two important points. The first is that, according to the metaphysical view, the linkage of every part of nature or the universe to the causes, conditions and circumstances relevant to it does not mean that one cannot notice it in an independent manner, or posit a specific definition of it.

That is why definition is one of the subjects with which metaphysical logic is concerned. Most likely, this is what led Marxism to accuse metaphysics of not accepting the general linkage and of not studying the universe on the basis of such linkage.

The reason is chat Marxism found that a metaphysician takes up one thing, and tries to identify it and define it independently of other things. Owing to this, Marxism thought chat the metaphysician does not accept the linkage among things and does not study things except when some of them are isolated (p. ۲۹۶) from others.

Thus, when the metaphysician defines 'humanity' as 'life and thought', and 'animality' as 'life and will', he has isolated 'humanity' and 'animality' from their circumstances .and attachments and viewed them as independent

However, in face the definitions that the

p: ٣٥۶

metaphysical logic is accustomed to give to any specific thing are not at all incompatible with the principle that asserts the general linkage among things, nor are they intended to indicate the disentanglement among things or the sufficiency of .studying these things by giving them those specific definitions

When we define 'humanity' as 'life and thought', we do not seek by this a denial of the linkage of humanity to the external factors and causes. Rather, by this definition, we intend to give an idea of the thing that is linked to those factors and causes, in order .for us to investigate the factors and causes that are linked to that thing

Even Marxism itself considers definition as a method for achieving the same purpose. Thus it defines the dialectic, matter and so on. Lenin for example, defines the dialectic as 'the science of the general laws of motion'.(١) He also defines matter as 'the objective reality which is given to us by the senses'.(٢)

Can one understand from these definitions that Lenin isolated the dialectic from the other parts of human scientific knowledge, and did not accept the linkage of the dialectic to such parts? Similarly, can one understand that he viewed matter as independent, and studied it without attention to its links (p. ٢٩٧) and interactions? The .answer is no

A definition does not mean, either as a whole or in part, bypassing or disregarding linkage among things. Rather, it determines for us the notion whose various links

p: ٣٥٧

١- Marx, Engels wal-Marxiyya, p. ٢۴.

.Ma Hiya al-Madda, p. ٢٩ -٢

and relations we attempt to discover, so that it facilitates the discussion and study of .those links and relations

The second point is that linkage among the parts of nature cannot be circular. By this we mean that the two events, such as warmth and heat, that are linked cannot each be a condition for the existence of the other. Thus, since heat is a condition for the existence of boiling, boiling cannot also be a condition for the existence of heat.(١)

In the records of the general linkage, every part of nature has its own rank that determines for it the conditions that affect its existence and the phenomena whose existence it affects. But if each of the two parts or events is a cause for the existence of the other and at the same time indebted to the other for its own existence, this will make the causal linkage circular, returning to the point of its departure. But this is .impossible

Finally, let us study for a moment Engels' statements about general linkage and the :abundance of scientific proofs for it. He says

In particular, there are three discoveries that helped advance (p. ٢٩٨) the steps of giant thinkers with regard to our knowledge of the linkage of the natural progressive .processes

The first is the discovery of the cell as the unit from which the whole organic plant and animal element grows by way of multiplicity and distinctiveness. We had not known that the development of all the primary organic elements

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١ - One cannot take the interaction between external opposites as a proof for the possibility of this, for the interaction between external opposites does not mean that each of these opposites is a condition and a cause for the existence of the other. Rather, this interaction is actually due to the fact that each opposite acquires an

attribute which it did not have and which pertains to the other opposite. Thus, the negative and the positive charges interact, not in the sense that each of the two charges comes into existence as a result of the other, but in the sense that the negative charge produces a specific state of attraction in the positive charge. The .converse of this is also true

and what resembles them follow one another in accordance with one general law .only

But also the capacity of the cell to change points to the way according to which the organic elements can change their kinds. By means of this, they achieve a larger .development than that which every one of them can achieve separately

The second is the discovery of the transformation of energy which shows that all 'the forces having primary influence on nature are other than the organic elements. This indicates that all such forces are different manifestations of a general motion. Every .one of these manifestations passes to the other by specific quantitative proportions

The third is the comprehensive proof of which Darwin(۱) was the first to speak and which states that all the products of nature, including people, that surround us at the (present time are nothing but products of along process of development.(۲

In fact, the first discovery is one of the scientific discoveries in which metaphysics scored a victory, because this discovery proved that the source of life is the living cell (the protoplasm). Thus, it removed the delusion according to which it is possible to .have life in any organic element in which specific material factors are available

It also drew a distinction between living beings and non-living beings, by virtue of the fact that the specific germ of life is alone responsible for carrying its own great secret.(۳) Therefore, the discovery of the living cell, which pointed to a unified origin of

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Charles Robert Darwin, English naturalist (۱۸۰۹-۸۲). One of the strongest and best- -۱

known defenders of organic evolution. His most important work is The Origin of .(Species by Means of Natural Selection (١٨۵٩

.Ludwig Feuerbach, p. ٨٨ -٢

.It must be noted, though, that this distinction is no longer recognized -٣

living beings, also showed us at the same time the degree (p. ٢٩٩) of difference .between living and non-living beings

The second discovery is also considered a great victory for metaphysics since it proved scientifically that all the forms that energy takes, including the material quality, are accidental qualities and characteristics. Thus, they are in need of an external cause, as we will point out in the fourth chapter of this investigation. Add to .this that the present discovery is incompatible with the laws of the dialectic

It assumes that energy has a fixed and a limited quantity not subject to the dialectical motion that the Marxist disputation claims to be true of all the aspects and phenomena of nature. If science proves that a certain aspect of nature is an exception to the laws of the dialectic, then the necessity and absolute character of the .dialectic is discarded

Darwin's theory of the development of species and the evolution of some of them from some others is also not consistent with the dialectical laws. It cannot be taken as a scientific support of the dialectical method of explaining events. Darwin and others who contributed to the construction and emendation of this theory explained the development of a species into another on the basis that some individuals of the former species acquire attributes and characteristics, either by mechanical .coincidence or by defined external causes, such as the community and environment

Every attribute that an individual acquires remains fixed in him and is transferred by heredity

to his offspring. With this, a strong generation(١) is produced due to such acquired

attributes. The law of the struggle for survival fulfills its function in the midst of a struggle for food and survival between the strong members of this generation and .the weak individuals(۲) of the species who have not acquired such attributes

The weak individuals are destroyed, while the strong survive. The characteristics are gathered by having every generation transmit to the succeeding generation by way of heredity the characteristics it had acquired due to the circumstances and community in which it had lived. This goes on, until a new species is formed that enjoys all the characteristics that its ancestors had acquired with the passage of time. ((p. ۳۰۰

We can clearly see the extent of contradiction between this Darwinian theory and the general dialectical method. The mechanical character of this theory is made clear in Darwin's explanation of the animal's development due to external causes. The individual characteristics and differences which the strong generation of the individuals of a species acquires are not the result of a developmental process nor the .fruit of an internal contradiction

Rather, they are the product of a mechanical occurrence or of external factors, such as the community and environment. It is the objective circumstances which the strong individuals live that provide them with the elements of their strength and the characteristics that distinguish them from others, and not the internal struggle in their .innermost being, as the dialectic assumes

Further, the

.i.e., an adapted generation -۱

.i.e., unadapted -۲

characteristic that the individual acquires mechanically- chat is, by means of external causes that are of the [environmental] circumstances he lives -does not develop by a dynamic motion and does not grow by an internal contradiction, so that it transforms

the animal into a new kind. Rather, it remains fixed, and is transferred by heredity and .without development. It continues by a fixed and simple form of change

After this, another characteristic is added to the previous one that, in turn, is produced mechanically by means of objective circumstances. Thus, another simple change takes place. This is how the characteristics are produced mechanically. They continue their existence in their offspring by way of heredity. They are stable and fixed. When .they are gathered, they finally constitute a loftier form of the new kind

There is also a big difference between the law of the struggle far survival in Darwin's theory and the idea of the struggle of opposites in the dialectic. The idea of the struggle of opposites, according to the dialecticians, expresses a struggle between two opposites that, in the last analysis, leads to their union in a loftier composition (consistent with the triad of the thesis, antithesis and synthesis. (p. ۳۰۱

In the class struggle, for example, the battle is waged between two opposites in the internal structure of society, these two opposites being the capitalistic class and the working class. The struggle ends with the absorption of the capitalistic class by the working class. The two classes are united

p: ۳۶۲

.in a classless society, all of whose individuals are owners and workers

On the other hand, the struggle for survival or the strife between the strong and the weak in Darwin's theory is not dialectical, since it does not lead to the union of opposites in a loftier composition. Instead, it leads to the destruction of one of the two .opposites and the retention of the other

It completely eliminates the weak individuals of the species and retains the strong. Further, it does not result in a new composition in which both the weak and the strong (the two opposites in struggle) are united, as the dialectic assumes in the triad of the .thesis, antithesis and synthesis

If we discard the idea of the struggle for survival or the law of natural selection as an

explanation of the development of the species, replacing it by the idea of the struggle between the animal and his community, a struggle which helps form the organic system in accordance with the conditions of the community, and if we say that the latter kind of struggle (instead of the struggle between the weak and the strong) is the source of development, as Roger Garaudy asserts(١) - I say that if we develop this theory and explain the progress of the species in light of the struggle between the animal(٢) and his environment, we will not reach a dialectical conclusion either.

This is because the struggle between the community and the organic system does not result in

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١- Ar-Ruh al-Hizbiyya fi al-'Ulum, p. ۴٣.

٢- (Text: al-bi'a (community)

the meeting and union of the two in a loftier composition. Rather, the thesis and the antithesis remain separate. In this case, even if the two opposites in struggle - that is, the animal(١) and the environment -remain in existence at the end of the struggle, with neither of them being destroyed in the conflict, still they do not unite in a new composition, as the capitalistic and the working classes unite in a new social composition. (p. ٣٠٢)

Finally, where is the Darwinian immediacy and biological perfection? The dialectic asserts that the qualitative transformations occur immediately in contrast to the quantitative changes that occur slowly. Further, it asserts that motion is continously heading in the direction of perfection and ascent.

Darwin's theory or the biological idea of development demonstrates the possibility of the exact opposite. Biologists have shown that in the living nature, there are cases of gradual motion, as there are cases of motion by sudden leaps.(٢)

Moreover, the interaction that Darwin points out between a living being and nature need not secure the perfection of the developing being. Rather, due to it, the living

being may lose some of the perfection that it had acquired, in accordance with the laws specified by Darwin in his theory of interaction between life and nature. This is exemplified in the animals who had a long time ago to live in caves and to abandon .the life of light

Thus, according to Darwin, they lost their sight due to their interaction with their

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.(Text. al-bi'a (community -١
.Ibid., p. ۴۴ -٢

specific environment and their disuse of the organ of sight in the fields of life. For this reason, the development of their organic composition led to regression. This is contrary to the Marxist view that asserts that the developmental processes that are interconnected in nature and that arise from internal contradictions always seek .perfection, since they are linear progressive processes

Chapter Three: The Principle of Causality

point

The principle of causality is one of the primary propositions known to people in their ordinary lives. This principle states that for everything there is a cause. It is one of the necessary rational principles; for (p. ٨٠٨) a human being finds at the heart of his nature a motive that causes him to attempt to explain the things he encounters and to justify the existence of such things by disclosing their causes. This motive is inborn in human .nature

Also, is may be present in a number of animals. Thus, such animals instinctively pay attention to the source of motion in order to know its cause. They search for the .source of a sound, again in order to know its cause

That is why human beings are always confronted with the question: 'Why . . .?' This question is raised concerning every existence and every phenomenon of which they

are aware, so that if they do not find a specific cause [of such an existence or such a phenomenon], they believe that there is an unknown cause that produced the event .in question

The following things depend on

the principle of causality: (۱) demonstration of the objective reality of sense perception; (۲) all the scientific theories and laws that are based on experimentation; and (۳) the possibility of inference and its conclusions in any philosophical or scientific field. Were it not for the principle and laws of causality, it would not be possible to .demonstrate the objectivity of sense perception, nor any scientific theory or law

Further, it would not be possible to draw any inference in any field of human .knowledge on the basis of any kind of evidence. This point will soon be clarified

Causality and the Objectivity of Sense Perception

In 'The Theory of Knowledge', we pointed out that sense perception is nothing but a form of conception. It is the presence of the form of the sensible thing in the sense .faculties. It does not have the character of a true disclosure of an external reality

That is why, in the case of certain illnesses, a human being may have sense perception of certain things, without assenting to the existence of those things. Therefore, sense perception is not a sufficient ground for assent, judgement or (knowledge concerning the objective reality. (p. ۳۰۴

As a result of this, the problem we face is that if sense perception is not in itself evidence for the existence of the sensible thing that lies outside the limits of awareness and knowledge, then how can we assent to the existence of the objective .reality? The answer is revealed in light of our study of the theory of knowledge

It is as follows. The assent to the existence of an objective reality of the world is a

.primary necessary assent. For this reason, it does not require evidence

However, this necessary assent indicates only the existence of an external reality of the world in general. But the objective reality of every sense perception is not known in a necessary manner. Therefore, we need evidence to prove the objectivity of every .specific sense perception. This evidence is the principle and laws of causality

The occurrence [in the senses] of the form of a specific thing under specific circumstances and conditions reveals, in accordance with this principle, the existence of an external cause of that thing. Were it not for this principle, sense perception or the presence of a thing in the senses could not reveal the existence of that thing in .another sphere

Because of this, in a specific case of illness, a human being may perceive certain things, or imagine that he sees them, without discovering an objective reality of those things. This is because the principle of causality does not prove the existence of that reality, as long as it is possible to explain a sense perception by the specific case of the .illness

Rather, it proves the objective reality of sense perception if there is no explanation of it in light of the principle of causality except by an objective reality that produces the .sense perception. From this one can draw the following three propositions

First, 'Sense perception

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by itself does not disclose the existence of an objective reality, since it is conception, and it is not the task of conception (regardless of its kind) to give a true disclosure'. Second, 'Knowledge of the existence of a reality of the world in general is a necessary and primary judgement that does not require evidence; that is, it does not require prior knowledge'- this is the point separating idealism from realism. (p. ۳۰۵) Third, 'Knowledge of an objective reality of this or that sense perception is acquired only in .'light of the principle of causality

Causality and Scientific Theories

Scientific theories in the various experimental and observational fields are in general primarily dependent on the principle and laws of causality. If causality and its proper order are eliminated from the universe, it becomes very difficult to form a scientific theory in any field. For the clarification of this, we must point out a number of causal .laws from the philosophical group [of laws] on which science rests

:These laws are the following

;The principle of causality that asserts that every event has a cause

the law of necessity that asserts that every cause necessarily produces its natural ;effect, and that it is not possible for effects to be separate from their causes

the law of harmony between causes and effects that asserts that every natural group that is essentially in harmony must also be in harmony with respect to [its] causes and .effects

Thus, in light of the principle of causality, we know, for example, that the radiation

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emitted from the radium atom has a cause, which is the internal division in the content of the atom. Further, in light of the law of necessity, we find that this division necessarily produces the specific radiation when the necessary conditions are fulfilled. The presence of these conditions and the production of this radiation are .inseparable

The law of harmony is the basis of our ability to generalize the phenomenon of .radiation and its specific explanation to all the radium atoms

Thus, we say that as long as all the atoms of this element are essentially in harmony, they must also be in harmony with respect to (p. ۳۰۶) their causes and effects. If scientific experimentation discloses radiation in some of the. radium atoms, it becomes possible to assert this radiation as a common phenomenon of all similar

.atoms, given the same specific circumstances

It is clear that the last two laws - that is, the law of necessity and the law of harmony - are the result of the principle of causality. If there were no causality in the universe between some things and some other things - (that is,] if things happened haphazardly and by chance - it would not be necessary that, when there is a radium .atom, radiation exists at a specific degree

Also, it would not be necessary that all the atoms of this element share the specific radiational phenomena. Rather, as long as the principle of causality is excluded from the universe, it would be

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possible that radiation pertains to one atom and not to another, just because of haphazardness and chance. Thus, both necessity and harmony are attributed to the .principle of causality

After having clarified the three main points (causality, necessity- and harmony), let us go back to the sciences and scientific theories. We see with clarity that all the theories and laws involved in the sciences are in truth established on the above main points, and depend on the principle and laws of causality. If this principle were not taken as a fixed philosophical truth, it would not be possible to establish a theory and to erect a .general and comprehensive scientific law

The reason is that the experiment performed by the natural scientist in his laboratory cannot cover all the parts of nature. Rather, it covers a limited number of parts that are essentially in harmony. Thus, such an experiment discloses that such parts share a specific phenomenon. When the scientist is certain of the soundness, precision and objectivity of his experiment, he immediately postulates a theory or a general law .applicable to all the parts of nature that resemble the subject of his experiment

This generalization, which is a basic condition for establishing a natural science, is not justified except by the laws (p. ۳۰۷) of causality in general - particularly, the law of

harmony which [as mentioned,] asserts that every group that is essentially in harmony must also be in harmony with respect to [its] causes and effects.

Therefore,

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had there not been causes and effects in the universe, and had things occurred by pure chance, it would not have been possible for the natural scientist to say that what is confirmed in his own laboratory is applicable with no restriction to every part of nature. Let us illustrate this by the simple example of the natural scientist who proved by experimentation that bodies expand when heated.

Of course, his experiments did not cover all the bodies in the universe. Rather, he performed his experiments on a number of various bodies, such as the wooden car wheels on which iron frames smaller than they are placed when heated.

Thus, as soon as these frames cool off, they contract and clasp the wood firmly. Let us suppose that the scientist repeats this experiment on other bodies a number of times. At the end of the experimental course, he cannot escape the following question: 'Since you have not covered all the particular bodies, how then can you believe that new frames other than those you have tried will also expand by heat?'

The only answer to this question is the principle and laws of causality. Since the mind does not accept haphazardness and chance, but explains the universe on the basis of causality and its laws, including those of necessity and harmony, it finds in limited experiments a sufficient ground for accepting the general theory that asserts the expansion of bodies by heat.

This expansion that experiments disclosed did not occur haphazardly.

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Rather, it was the result or effect of heat. Since the law of harmony in causality dictates that a single group in nature is in harmony with respect to its causes and

effects, or agents and results, it is no wonder then that all the reasons of securing the .applicability of the phenomenon of expansion to all bodies are met

Thus, we know that the positing of the general theory was not possible (p. ٣٠٨) without starting from the principle of causation. Hence, this principle is the primary foundation of all the experimental sciences and theories. In short, the experimental theories do not acquire a scientific character unless they are generalized to cover fields beyond .the limits of particular experiments, and are given as a general truth

However, they cannot be given as such except in light of the principle and laws of causality. Therefore, the sciences in general must consider the principle of causality and the closely related laws of necessity and harmony as fundamentally admitted truths, and accept them prior to all the experimental theories and laws of the .sciences

Causality and Inference

The principle of causality is the foundation on which all attempts of demonstration in all the spheres of human thought rest. This is because demonstration by evidence for a certain thing means that if the evidence is sound, it is a cause of the knowledge of the thing that is the object of demonstration. When we prove a certain truth by a scientific experiment, a philosophical law or a simple

sense perception, we only attempt to have the proof as a cause of the knowledge of .that truth

Thus, were is not for the principle of causality and [the law of] necessity, we would not he able to do so. The reason is that if we discounted the laws of causality and did not accept the necessity of the existence of specific causes of every event, there would not be any link between the evidence on which we rely and the truth that we attempt to acquire by virtue of this evidence. Rather, it becomes possible for the evidence to be sound without leading to the required result, since the causal relation between the pieces of evidence and the results, or between the causes and the effects, is broken

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Thus, it becomes clear that every attempt at demonstration depends on the acceptance (p. ۳۰۹) of the principle of causality; otherwise, it is a wasteful and useless attempt. Even the demonstration of the disproof of the principle of causality, which is attempted by some philosophers and scientists, also rests on the principle of .causality

For those who attempt to deny this principle by resorting to a certain evidence would not make this attempt had they not believed that the evidence on which they rely is a sufficient cause of the knowledge of the falsehood of the principle of causality. But .this is in itself a literal application of this principle

Mechanics and Dynamics

This leads to the following conclusions. First, it is not possible to

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prove or to demonstrate empirically the principle of causality, since the senses do not acquire an objective quality except in light of this principle. We prove the objective .reality of our sense perceptions on the basis of the principle of causality

Therefore, it is not possible that for its demonstration, this principle depends on the senses and relies on them. Rather, it is a rational principle that people accept .independently of the external senses

Second, the principle of causality is not an experimental scientific theory. Rather, it is a rational philosophical law above experimentation, for all scientific theories depend on it. This became fully clear after having learned that every scientific conclusion that .relies on experimentation faces the problem of generality and comprehensiveness

This problem is that the experiment on which the conclusion rests is limited. How then could it by itself be evidence for a general theory? We learned that the only solution for this problem is the principle of causality, since it is evidence for the generality and

.comprehensiveness of the conclusion

Thus, if we assume that the principle of causality itself rests on an experiment, it becomes necessary that (p. ۳۱۰) we face the problem of generality and comprehensiveness once again. An experiment does not cover the universe; how then would it be considered evidence for a general theory? When encountering this problem with respect to the various scientific theories, we used to solve it by resorting to the principle of causality, since this principle is sufficient evidence

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.for the generality and comprehensiveness of the conclusion

But if this principle itself is considered experimental and the same problem is encountered with respect to it, we will be totally unable to solve this problem. It is necessary, therefore, that the principle of causality be above experiments and a .fundamental principle of the experimental conclusions in general

Third, it is not possible to give any kind of evidence for the disproof of the principle of causality. The reason is that every attempt of this kind entails an admission of this principle. Therefore, this principle is fixed prior to any evidence given by human .beings

These conclusions can be summarized as follows. The principle of causality is not an experimental principle. Rather, it is a necessary rational principle. In light of this, we can distinguish between mechanics and dynamics, and between the principle of .causality and the principle of indeterminacy

The mechanical explanation of causality rests on the basis of causality as an experimental principle. According to mechanical materialism, this principle is nothing but a material relation between material phenomena in the experimental field and is .discovered by scientific methods

That is why it is natural that mechanical causality collapses if experimentation fails in some scientific fields to disclose the causes and agents behind the phenomenon in

question. That is because this kind of causality is not attained except on an experimental basis. If experimentation works against it, and practical application does .not prove it, then it falls short of scientific confidence and consideration

,However

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according to our view of causality, which asserts that causality is a rational principle above experimentation (p. ۳۱۱) the situation is completely different with regard to various aspects. First, causality is not limited to the natural phenomena that appear in .the experiment

Rather, it is a general law of existence at large, which includes the natural phenomena, matter itself, and the various kinds of existence that lie beyond matter, Second, the cause whose existence is confirmed by the principle of causality need not .be subject to experimentation, or be a material thing

Third, the fact that experimentation does not disclose a specific cause of a certain development or of a certain phenomenon does not mean a failure on the part of the principle of causality, for this principle does not rest on experimentation, which can be shaken in the case of the absence of experimentation. In spite of the failure of experimentation to discover the cause, philosophical confidence in the existence of .such a cause remains strong, in accordance with the principle of causality

The failure of experimentation to discover the cause is due to two things: either to the fact that experimentation is limited and does not extend to the material reality and occurrence of specific attachments, or to the fact that the unknown cause lies outside .empirical thought, and is beyond the world of nature and matter

By virtue of the above, we can distinguish the basic differences between our idea of the principle of causality and the mechanical idea

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of this principle. We can also see that the doubt raised concerning this principle was .only due to the interpretation of it in accordance with the deficient mechanical notion

The Principle of Causality and Microphysics

In light of the conclusions drawn above regarding the principle of causality, we can defeat those strong attacks that were waged in microphysics against the law of (p. ٣١٢) necessity, and consequently, against the principle of causality itself. In atomic physics, there was the tendency that asserts that the necessary regularity stressed .by causality and its laws cannot be true on the level of microphysics

Thus, it may be true that the causes themselves produce the effects themselves on the level of scholastic physics or on the level of the physics of the naked eye. Furthermore, the influence of causes acting on the same particular circumstances must necessarily lead to the saint results, such that we can be sure of the nature and .necessitv of the results due to a study of the causes and natural conditions

However, everything appears different if we try to apply the principle of causality to the atomic world. That is why the physicist Heisenberg(١) declared that it is impossible for us to measure with precision the quantity of the motion of a simple body and to determine at the same time the position of this body in the wave related to it, in accordance with the positive mechanics called for by Louis de Broglie.(٢) The more precise the measurement of this body's position, the more is this

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Werner Heisenberg, German philosopher and physicist (١٩٠١-٧٦). Heisenberg won -١ the Nobel Prize for physics in ١٩٣٢. His most important contributions are in the area of quantum mechanics. He is known for the notion of 'uncertainty relations', which is also known as 'Heisenberg's principle of indetermincy'. According to this notion, microscopic things cannot be measured quantitatively by space-time coordinates. One cannot simultaneously specify the position and momentum of a particle. His principal writings arc: The Physical Principles of Quantum Theory and Physics and .Philosophy

Prince Louis-Victor de Broglie, French physicist (١٨٩٢-). In ١٩٢٩, he received the - ٢ Nobel Prize for physics. He demonstrated that any particle is accompanied by a wave. Such a wave has a wave length that is inversely related to the momentum of the .particle that depends on the mass and velocity of the particle

measurement a factor in the readjustment of the quantity of motion, and consequently in the readjustment of the velocity of the small body in an unpredictable manner. Further, the more precise the measurement of the motion, the more (indeterminate does the position of the small body become.(١

Thus, physical events in the atomic sphere cannot be measured unless they involve some unmeasurable disorder. The more profound our precision of the scientific measurements, the more distant do we become from the objective reality of those events. This means that it is not possible to separate a thing observed in microphysics .from the scientific instrument used by the scientist to study that thing

Similarly, it is not possible to separate chat thing from the observer himself, since different observers working on the same subject with the same instrument [may] achieve different measurements. With this, the idea of indeterminacy arose; this idea is in full contradiction against the principle of causality (p. ٣١٣) and against the basic .rules that governed physics previously

Attempts were made to replace necessary causality by what is called 'uncertainty relations' or 'laws of probability', advocated by Heisenberg who insisted that the natural sciences, such as the human sciences, cannot make predictions with certainty when considering a simple element. Rather, the utmost they can do is to form a .probability

In fact, all these scientific doubts and suspicions that the scientists raised in microphysics are based on a specific notion of the principle and laws of causality that is in

.Hadhih Hiya ad-Dialaktikiyya, p. ١٩٢ -١

disagreement with our option of this principle and these laws. We do not wish to disagree with these scientists over their experiments, or to ask them to overlook and abandon the discoveries made by means of these experiments.

Furthermore, we do not intend to minimize the value and importance of such discoveries. Rather, we differ from those scientists in our general notion of the principle of causality. On the basis of this difference, all the above-mentioned attempts to destroy the principle and laws of causality become insignificant.

Put in more detail, if the principle of causality were a scientific principle that rests on experimentation and observation in the ordinary fields of physics, it would be dependent on experimentation for its demonstration and generality.

Thus, if we do not achieve clear applications of it in the atomic field and cannot discover a necessary order in this field that rests on the principle and laws of causality, then it would be our right to doubt the value of this principle itself and the extent of its soundness and generality.

But we have already shown (١) that the applicability of the principle of causality to the ordinary fields of physics and the belief that causality is a general order of the universe in these fields are not the result of a pure experimental evidence; and (٢) that the principle of causality is a necessary principle above experimentation.

If this were not so, no natural science at all would be possible. If this becomes clear

to us, and we give the principle of causality its natural place in the chain of human thought, (p. ٣١۴) our inability to apply it experimentally in some natural fields and our failure to discover by scientific methods the complete necessary order in these fields cannot shake this principle.

All the observations gathered by scientists in light of their microphysical experiments

do not show that scientific evidence has proved the falsity of the principle and laws of .causality in this exact field, which is one of the many natural fields

It is clear that the lack of scientific and experimental capabilities does not affect the principle of causality, neither in part nor as a whole, since this principle is necessary and above experimentation. There are, then, two explanations of the failure of the scientific experiments in the attempt at grasping the mysteries of the necessary order .of the atom

The first is a deficiency in the scientific methods and an unavailability of the experimental instruments that give the scientist the opportunity to look over all the material conditions and circumstances. A scientist may work on the same subject with .the same instrument on a number of occasions

Yet, he [may] reach different results, not because the subject of his work is free from any necessary order, but because the available experimental instruments are insufficient to disclose to him the exact material conditions whose differences lead to the differences among the results. It is natural that the experimental instruments concerning the atomic

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fields and events are more deficient than the experimental instruments employed in .other physical fields that are less concealed and clearer

The second is the effect produced in the subject by the scientific measurements and instruments, due to the subject's delicacy and smallness. This effect is critical and not subject to scientific measurements and study. The scientific instruments may reach the highest level of precision, perfection and profundity, yet in spite of this the .scientist still faces the same problem

This is because he finds himself confronted with physical events that he cannot measure without introducing in them an unmeasurable disorder. With this, his position regarding these events is different from his position regarding experiments of physics

measured by the naked eve. The reason is that in those experiments, he can apply his .measurements without (p. ۳۱۵) any readjustment in the thing to be measured

Even when he makes some readjustment in that thing, this readjustment itself will be measurable, In microphysics, on the other hand, the minuteness and strength of the instrument may itself be the cause of that instrument's failure, since it causes a change in the observed subject. Therefore, that subject cannot be studied in an .independent objective manner

That is why John-Louis Destouches(۱) says regarding a small body chat instead of the intensity of light being what is important, it is the length of the light wave that matters. Whenever we light that small body by a short wave - that is, by a wave of a

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.Destouches, John-Louis -۱

.large frequency - the motion of that body becomes subject to disorder

Both causes are attributed to the failure of the scientific experimental instruments and observations either to regulate the observed subject by all its material conditions and circumstances, or to measure with precision the effect that the experiment itself produces in that subject. All of this confirms one's inability to view the necessary order governing, for example, the small bodies and their motion, and to predict with precision the path that these bodies will follow. Further, this does not prove their freedom, nor does it justify the introduction of indeterminacy in the material realm .and the elimination of the causal laws from the universe

Why Things Require Causes

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We will now discuss a new aspect of the principle of causality - namely, the response to the following questions: 'Why do things require causes or agents without which they cannot come to exist; and what is the real cause that makes them dependent on

those causes and agents?' These are questions that we face, of course, after having .accepted the principle of causality

As long as the things that are contemporaneous with us in this universe are in general subject to the principle of causality (p. ٣١۶) and exist in accordance with the laws of causality, we must inquire about the secret of their subjugation to this principle. Can this subjugation be attributed to something essential in those things of which they cannot at all be free? Or is it attributable to an external cause that

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makes them in need of causes or agents? Whether this or that is true, [the question remains] as to the limits of this secret on which the principle of causality rests. ?Further, is it or is it not common to all the various kinds of existence

.Four theories resulted from attempts made to respond to these questions

I. The Theory of Existence

This theory states that an existent requires a cause for its existence. This requirement is essential to the existence. We cannot conceive an existence free from this requirement. The reason behind the requirement for a cause is a secret hidden in the innermost being of existence. The consequence of this is that every existence is .caused

Some Marxist philosophers adopt this theory, relying in their scientific justification of it on experiments, which indicate in the various fields of the universe that existence in its different forms and kinds disclosed by experimentation cannot be free from its cause and cannot dispense with its agent. Causality is a general law of existence as confirmed by scientific experiments. The assumption of an existence without a cause is contradictory to this law. That is why such an assumption is a kind of belief in (haphazardness for which there is no room in the general order of the universe.(١

By way of this, they have attempted to accuse theology of upholding haphazardness because it upholds the existence of a first cause not caused, or not preceded by an

agent. Since this existence, which theology is alleged to accept, is an exception

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.Jabr wa-Ikhtiyar, p. ۵ -١

to the principle of causality, (p. ٣١٧) it is, therefore, the result of haphazardness. But science has proved that there is no haphazardness in existence. Hence, one cannot .admit this divine cause that metaphysics advocates

Once again, these thinkers were at error for wishing to discover the secret of the requirement for a cause, and to know by means of scientific experiments the limits of causality and the extent of the broadness of such limits. They erred earlier when attempting to infer the principle of causality itself, particularly, from experiments and .scientific induction about the universe

Scientific experiments are not applicable except in their own sphere, which is a limited material realm. The most they disclose is the subjugation of things in that realm to the principle of causality. Thus, explosion, boiling, burning, heat, motion, as well as other similar natural phenomena do not exist without causes. It is not within the scientific possibilities of experiments to indicate that the secret of the requirement for a cause lies at the heart of existence in general. It is possible that this secret is fixed in specific forms of existence, and that the things appearing in the experimental field are of .those specific forms

Therefore, it is incorrect to consider experimentation as an evidence that existence in general is subject to agents or causes, as long as experimentation is not directly in .touch with anything except the material realm of existence

Further, as long as its activity is in this realm with which it

is directly in touch, it will not extend beyond the clarification of the causes and effects that proceed from those causes to a discovery of the cause that makes those effects

in need of those causes. If experimentation and its limited means fall short of forming a clear answer to this issue, then one must study this issue on the basis of rational principles and in an independent philosophical manner. As the principle of causality itself is one of the purely philosophical principles, as you have already learned, so also .are the investigations concerning it and the theories that treat its limits

We must point out that the accusation that the idea of the first cause is a kind of a (p. ۳۱۸) belief in haphazardness implies a misunderstanding of this idea and the notions on which it rests. This is because chance is nothing but the existence, without a cause, .of something with respect to which existence and non-existence are the same

Thus, anything that includes the possibility of existence and the possibility of non-existence to the same degree, and then comes into existence without a cause is chance. But the idea of the first cause proceeds from the assertion that existence and non-existence are not equal in the first cause. Therefore, this cause is not both possible of existence and possible of non-existence. Rather, its existence is necessary, and its nonexistence is impossible. It is intuitive that a belief in a necessary being characterized as such does not at

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.all imply an assent to haphazardness

II. The Theory of Creation

This theory considers the need of things for their causes as based on the creation of these things. Explosion, motion and heat, for example, require causes for themselves, .only because they are things that exist after they had not existed

Thus, it is the coming into existence that requires a cause, and is the main reason for our raising the following question regarding every reality contemporaneous with us in this universe: 'Why did it exist?' In light of this theory, the principle of causality becomes limited to events in particular. Thus, if a thing exists continuously and always, and has not come into existence after not having existed, there will be no .need in it for a cause, nor will is enter the specific realm of causality

The present theory went too far in restricting causality, as the previous theory went too far in generalizing causality. From a philosophical point of view, there is nothing to justify the present theory. In fact, the attribution of the coming into existence to the thing's existing after not having existed is like the existence of warmth in a certain .water that had not been warm

It does not matter to the mind whether this warmth comes into existence after non-existence, or whether it exists continuously. In either case, the mind requires a specific cause for it. (p. ٣١٩) Extension of a thing's age and history to the furthest times would not justify that thing's existence, nor would it make

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it dispense with a cause. In other words, since the coming into existence of the warmth requires a cause, extending the warmth [over time] would not be sufficient to .free it from this requirement

This is because its extension makes us pursue further the question about its cause, .regardless of the length of the extension process

III, IV. The Theories of Essential Possibility and Existential Possibility

These two theories assert that what makes things need their causes is possibility. However, each of the two theories has its own notion of possibility that differentiates it from the other theory. The difference between them is a manifestation of a deeper philosophical difference concerning quiddity and existence. Since the scope of this book does not permit a discussion and a study of this difference, we will limit ourselves in our investigation to the theory of existential possibility, due to the fact that this theory rests on the view that asserts the fundamentality of existence - that .is, the correct view concerning the deeper philosophical difference mentioned above

The theory of existential possibility was advanced by the great Islamic philosopher, Sadr ad-Din ash-Shirazi, who begins this theory by the analysis of the principle of causality itself. This analysis led to his attainment of the secret. His grasp of the real cause behind the need of things to have their causes did not require of him anything

.other than a deep philosophical understanding of the principle of causality

Now, we begin, as he began, by studying and scrutinizing causality. There is no doubt that causality is a relation between

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two existences: the cause and the effect. Therefore, it is a kind of link between two things. But links are of various kinds and types. (p. ٣٢٠) The painter is linked to the tablet on which he draws. The writer is linked to the pencil with which he writes. The reader is linked to the book that he reads. The lion is linked to the iron chain that surrounds his neck. The same is true of the remaining relations and links among .[other] things

However, an obvious fact appears clear in all the examples of linkage presented above. It is this: each of the two linked things has a specific existence prior to its link with the other thing. The tablet and the painter are both in existence before the act of painting comes into being. Similarly, the writer and the pencil are both in existence .before each of them is linked to the other

Again, the reader and the book both exist independently, and later, linkage occurs to them. Thus, in all these examples, a link is a relation that occurs to the two things after they had both existed. That is why a link is one thing, while the existence of the two linked things is another. In its essence, the tablet is not a link to the painting, nor is the painter in essence a mere link to the tablet. Rather, linkage is a quality that happens .to both of them after each had existed independently

This difference between

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the reality of the link and the independent existence of each of the two linked things is evident in all kinds of links, to the exclusion of one kind – namely, the link between two things by means of the link of causality. If, for example, B is linked to A causally, and if B is an effect or product of A, we will have two things one of which is an effect (this

being B), while the other is a cause (this being A). The causality between the two, on the other hand, is the kind of link that one of them has to the other.

But the question is this: does B have an existence independent of its link to A, and then experiences linkage, as is the case with the tablet in relation to the painter? It does not take much examination to answer in the negative. If B has a real existence prior to its link with its cause, it will not be an effect of A. This is because as long as it exists independently of its link to A, (p. ٣٢١) it is not possible for it to be the effect or product of A.

Causality by nature requires that the effect does not have a reality prior to its link with its cause; otherwise, it will not be an effect. This makes it clear that the existence, which is an effect, has no reality except the very link and relation to the cause.

p: ٣٨٩

This is the main difference between the link of the effect to the cause and the link of the tablet to the painter, the pencil to the writer, or the book to the reader. The tablet, the pencil and the book are things characterized by linkage to the painter, the writer and the reader. But B is not something that has a link or a relation to the cause, for to suppose it as having such a link requires that it has an independent existence to which linkage occurs as it occurs to the tablet in the hands of the painter. But with this, B would cease to be an effect.

Rather, it becomes the very linkage, in the sense that its being and existence become a conjunctive being and a relational existence. That is why the discontinuity of its linkage to its cause is a destruction of it and an end to its being, for its being is represented in that linkage. On the contrary, if the tablet is not linked to the painter in a specific act of painting, it will not lose its specific being and existence.

If we can draw this important conclusion from the analysis of the principle of causality, we can immediately give an answer to our basic question and know the secret of the things' need for their causes. In light of the preceding discussion, [it becomes clear that] the secret of this is that the external realities on which the

p: ۳۹۰

.operates are nothing in fact other than relations and links

Therefore, relations and links are constitutive of the being and existence of these things. It is clear that if a reality is relational - that is, if it is the very relation and link- it cannot be detached from the thing to which it is essentially linked or related. That .thing is its cause or agent, for it cannot exist independently of it

Thus, we know that the secret of these external realities that are contemporaneous with us for requiring a cause is not their coming into existence nor the possibility of their quiddities. Rather, this secret (p. ۳۲۲) lies hidden in their existential structure and in the heart of their being. Their external reality is the very relation or link, and the .relation and link cannot dispense with the thing to which they are related or linked

At the same time, we also know that if the external reality is not one of conjunction and relation, the principle of causality will not be applicable to it. Therefore, external existence is not, as a whole, governed by the principle of causality. Rather, this principle governs the relational existents whose reality expresses linkage and .relation

Fluctuation between Contradiction and Causality

In spite of the fact that Marxism takes the dialectical contradictions as its model in its analytic investigations of the various aspects of the universe, life and history, still it does not completely escape wavering between the dialectical contradictions and the ,principle of causality. Since it is dialectical

p: ۳۹۱

it emphasizes that growth and development result from the internal contradictions, as .was explained in earlier discussions

Thus, the internal contradiction is sufficient as an explanation of every phenomenon

in the universe, without need for a higher cause. But, on the other hand, Marxism admits the cause-effect relation, and explains this or that phenomenon by external causes, and not by the contradictions that are stored in the innerness of that .phenomenon

Let us take an example of this wavering from the Marxist historical analysis. On the one hand, Marxism insists that the presence of internal contradictions in the innermost being of the social phenomena is sufficient for the development of such phenomena in a dynamic motion. But it also asserts that the formidable social edifice is established as a whole on one principle - namely, the productive forces -and that the intellectual conditions, the political conditions and the like are nothing but superstructures in that edifice and reflections, in another form, of the productive method on which edifice is erected. This means that the relation between these superstructures and the productive forces is the relation of an effect (p. ٣٢٣) to a (cause. There is no internal contradiction but causality.(١)

It is as if Marxism realized that its position oscillates between internal contradictions and the principle of causality. Thus, it attempted to reconcile both sides. It imposed on the cause and effect a dialectical sense, and rejected its mechanical notion. On the basis of this, is allowed itself to use in

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For the purpose of clarification, review the discussion of historical materialism in - ١ .the work Our Economy, by the author

.its analysis the cause-effect procedure in a Marxist dialectical fashion

Thus, Marxism rejects the causality that takes a straight course in which the cause remains external to its effect, and the effect negative in relation to its cause; for such causality is in conflict with the dialectic (that is, with the process of essential growth in nature). This is because the effect in accordance with this causality cannot be richer and more developed that its cause, for increase in richness and development would .be inexplicable

But what Marxism intends by the cause and effect is this. The effect is the product of its contradictory: thus it develops and grows by an internal motion, in accordance with the contradictions it involves, so that it returns to the contradictory from which it sprang, in order to interact with it and, by means of its union with it, form a new composition more self-sufficient and richer than the cause and effect separately. This notion is in agreement with the dialectic and expresses the dialectical triad (the thesis, .(antithesis and synthesis

The cause is the thesis, the effect is the antithesis, and the union which is a link between the two is the synthesis. Causality here is a process of growth and completion by way of the production of the effect from the cause (that is, the antithesis from the thesis). The effect in this process is not produced negatively. Rather, it is produced accompanied by its internal contradictions that support its growth and preserve

p: ۳۹۳

.its cause in a loftier and more complete composition

In our previous discussion of the dialectic, we expressed our view regarding these internal contradictions (p. ۳۲۴) whose union and struggle in the interior of a being lead to the growth of that being. In light of the Marxist deeper notion of the cause-effect relation, we can know the error of Marxism in its notion of causality and the growth of the effect to which this form of causality leads, as well as the completion of the cause .by union with its effect

Since the effect is a kind of relation and link to its cause, the cause cannot be completed in a loftier composition by means of the effect. In the work Our Economy, p. ۲۳, we discussed some of Marx's applications of his dialectical notion of causality on a historical level, where he tries to prove that the cause is completed by its effect and unites with it in a richer composition. In that discussion of ours, we were able to show that these applications were the product of philosophical inexactitude and lack of .precision in defining cause and effect

Two causes and two effects may exist, where each of the two effects completes the cause of the other. When we are not careful in distinguishing the two causes it will appear as if the effect completes its own cause. Also, the effect becomes a cause of the availability of one of its conditions for existence. But the conditions for

p: ٣٩۴

existence are other than the cause that produces that existence. For further .clarification, see the discussion in Our Economy

Contemporaneity between Cause and Effect

point

Since we now know that the existence of the effect is essentially linked to the existence of the cause, we can understand that the cause is necessary for the effect and that the effect must be contemporaneous with the cause, so that its being and existence will be linked to chat cause. Thus, it cannot exist after the non-existence of the cause or cannot continue after the cause discontinues. This is what we wish to (express by 'the law of contemporaneity between the cause and the effect'. (p. ٣٢۵

Concerning this law, two arguments intended to prove that it is possible for the effect to continue after its cause discontinues were made. One of them was given by the .theologians, and the other by some modern mechanists

I. The Theological Argument

This argument rests on two ideas. The first is that coming into existence is the cause of the need of things for their causes. A thing needs a cause in order for it to come into existence. If it comes into existence, its existence after that will not require a cause. This is based on the theory of coming into existence (the falsehood of this theory was pointed out earlier). There, we learned that the need of a thing for a cause is not for the purpose of coming into existence, but because its existence is essentially linked to .its specific cause

The second is that the law

of contemporaneity between the cause and the effect is not consistent with a certain group of phenomena in the universes pat disclose with clarity the continuity of the existence of the effect after the discontinuity of the cause. The high building erected by builders and constructed by the participation of thousands of workers continues to exist after the operation of building and construction is over, even when the workers .depart from it and none of them remains alive

Also, the car that is produced by a special factory with 'the help of technicians continues functioning, and may retain its mechanical system, even if that factory is destroyed and those technicians die. Again, the memoirs recorded by the hand of a certain person survive for hundreds of years after that person ceases to exist, revealing to others that person's life and history. These phenomena prove that the .effect enjoys its freedom after it comes into existence and no longer needs its cause

But in fact, giving these phenomena as illustrations that the effect is free from its cause after it comes into existence (p. ۳۲۶) results from the lack of distinction between the cause and other things. If we understand the real cause of such phenomena - for example, the building of a house, the I construction of a] car system, and the writing of memoirs - we find that these things do not dispense with their causes at any moment of their existence, and that every natural effect is destroyed as

.soon as it loses its cause

What then is the effect of the employees' work to construct a house? It is the very operation of building. This operation is nothing but a number of motions made by the employees for the purpose of gathering raw material for construction, including brick iron, wood and similar things. These motions require the employees for their existence. Indeed, they definitely cease to exist at the time the employees cease to .work

The condition that occurs to the construction material as a result of the operation of construction is in its existence and continuity an effect of the properties of that material and of the general natural forces that impose on the matter the preservation .of its condition and position. The same is true of the remaining examples

Thus, the above-mentioned illusion disappears when we relate every effect to its cause, and no longer make an error with regard to the relation of the effects to their .causes

II. The Mechanical Opposition

This is the opposition raised by modern mechanics in light of the laws of mechanical motion posited by Galileo(۱) and Newton. On the basis of these laws, modern mechanics claimed chat if motion occurs due to a cause, it necessarily continues. Its continuity would not require a cause, contrary to the philosophical law already .mentioned

If we study this opposition carefully, we find that in fact it immediately leads to the cancellation of the principle of causality. This is because the reality of motion, as explained in earlier discussions, is

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۱ - Galileo Galilei, Florentine astronomer (۱۵۶۴-۱۶۴۲). He studied falling bodies, and decided that the velocity of the fall of a body is not proportional to the body's weight, as Aristotle had taught. Rather, it is proportional w the time the fall takes. His principal work is Dialogue concerning the Two Chief World Systems. In this work, the views of Ptolemy and Copernicus are expounded. Copernicus' views are presented in a more .favorable light than those of Ptolemy

.just a change or substitution

Therefore, it is a continuous coming into existence, i.e., a coming into existence linked to a coming into existence. Every one of its stages is anew coming into existence (p. .۳۲۷) and a change following another change

Thus, if it were possible for motion to continue without a cause, then it would be possible for is to occur without a cause, and for things to begin existing without a cause. The reason is that continuity of motion always involves a new coming into existence. Its dispensing with a cause means that the coming into existence also .dispenses with a cause

In order to clarify the inexplicability of this opposition from a scientific point of view, we must mention to the reader the law of essential powerlessness (qanun al-qusur .adh-dhati) in modern mechanics on which this opposition rests

Before Galileo, the common opinion concerning motion was that motion follows the moving force in the extent of continuity and existence. Thus, motion continues as long as the moving force remains in existence. If this force is removed, the body comes to .rest. Modern mechanics, however, posited a new law of motion

The idea of this law is that bodies at rest or in motion remain at rest or in motion until they are subjugated to the influence of another force, which is great in relation to .them and which forces them to change their state

The scientific evidence of this law is the experiment which shows that if a mechanical

p: ۳۹۸

system moving in a straight street with a specific force it isolated from the [external] moving force, it continues after chat to move with a certain measure of motion, before it comes to a full rest. It is possible to increase the length of this motion that occurs after the isolation of the system from the external moving force by polishing the parts of the system, repairing the road and reducing the external pressure. However, these things cannot do anything other than reduce the impediments in the .way of motion, such as the stalling and so on

Thus, if we are able to double these things that reduce the impediments, we will ensure the doubling of motion. If we suppose the removal of all impediments and the complete elimination of the external pressure, this would mean the endless continuity

.of (p. ٣٢٨) motion in a specific speed

One learns from this that if motion is produced in a body without being hampered by an external force that collides with it, it continues at a certain speed, even if the [external moving] force ceases. External forces affect the natural limit of the change of the speed, thus decreasing it or increasing it. For this reason, the degree of speed - with respect to intensity, weakness or slowness - depends on the external pressure which acts either in its direction or in the opposite direction. But the motion itself and .its continuity in its natural speed do not depend on external factors

,Clearly

if this experiment is sound, it does not mean that effects continue without causes, nor is it incompatible with the above-mentioned philosophical law. The experiment does not make clear the real cause of motion, so that we can know whether that cause has .discontinued while motion continues

Those who have tried to use such an experiment as evidence for the falsehood of the philosophical law claimed that the real cause of motion is the external moving forces. Since the link of this force to motion was disrupted while, nevertheless, motion .continued, this would show that motion continues after the discontinuity of its cause

However, ,the experiment does not actually show that the external moving force is the real cause, so that they can draw this conclusion. Rather, it is possible that the real cause of motion is something that had existed all along. Muslim philosophers believe that accidental motions, including the mechanical motion of a body, are all produced by a force within the same body. This force is the real moving force. External causes, .on the other hand, act to activate this force and prepare it as a cause

On the basis of this, the principle of substantial motion explained in an earlier chapter of this investigation was established. We do not wish at the present to exhaust this subject; rather, (p. ٣٢٩) our purpose is to clarify that scientific experimentation on

which the law of essential powerlessness was based is not incompatible with the laws of causality, nor

.does it prove the opposite of these laws

III. Conclusion

In order for us to draw a conclusion, we need only to add to the above the law of finitude (qanun an-nih'ya). This law states that some of the causes that ascend philosophically proceed from some others that must have a beginning: that is; a first cause which does not proceed from a prior cause. The succession of causes cannot go on to infinity. This is because, as mentioned, every effect is nothing but a sort of .relation or link to its cause

Therefore, all existing effects are links or relations. Links require an independent reality at which they stop. If there is no beginning to the chain of causes, all the parts of this chain will be effects. But if they are effects, they will be linked to other things. The question arises then as to what thing is it to which all these parts are linked. Put differently, if the chain of causes involves a cause not subject to the principle of causality and not in need of a cause, this would be the first cause which constitutes the beginning of the chain, since this cause does not proceed from another cause prior to it. If every existent in the chain, with no exception, requires a cause in accordance with the principle of causality, then ail existents would require a cause. .But the question remains as to why this is so

This necessary question is concerned with existence in general. We

cannot rid ourselves of it except by supposing a first cause free from the principle of causality. With this, we attribute the existence of things to that first cause, without encountering the same question regarding why this cause exists. The reason is that this question is encountered with regard to the things that are subject to the principle

(of causality in particular. (p. ۳۳۰

Let us take boiling as an example. It is a natural phenomenon requiring a cause, in accordance with the principle of causality. We consider the warmth of water as its cause. Like boiling, this warmth requires a prior cause. If we take boiling and warmth as two parts of the chain of existence or of the succession of agents and causes, we find that it is necessary to add to this chain another part; for each of the two parts is in .need of a cause

Therefore, they require a third part. Also, the three parts together face the same problem. They need a cause of their existence, since every one of them is subject to the principle of causality. This is constantly and always the case with the chain of cause, even if it includes infinite parts. So, since every part of it requires a cause, the .chain as a whole requires a cause

The question 'Why does it exist?' extends as far as the parts of the chain extend. No decisive answer to this question is possible, as long as the succession in the chain

does not lead to a part that is self-sufficient and not requiring a cause, so that this (part can put an end to the succession and give the chain its first eternal beginning.(۱

With this, we have gathered [evidence] sufficient for proving that this world proceeds from a being necessary in essence, self-sufficient and not requiring a cause. This is necessitated by the application of the principle of causality to the world, in accordance with the laws of causality mentioned earlier. If causality is a necessary principle of the universe, and if its infinite regress is impossible, it must, therefore, be applied to the universe in a comprehensive and ascending fashion, so that the universe can stop at a .necessary first cause

It is a good idea to point out at the end of this discussion a kind of material consideration (p. ۳۳۱) that some modern writers give of the present issue for the purpose of refuting the first cause or the first agent. According to this consideration,

the question about the first cause is nonsensical. The scientific or causal explanation always requires two terms, one of which is linked to the other -these being the cause and the effect, or the agent and the product.

Therefore, the expression 'first cause' is a contradiction in terms, since the word 'cause' requires two terms, as we have seen, while the word 'first' requires one term. Thus, a cause cannot be both first and a cause at the same time. It is either

p: ۴۰۳

۱- In a precise philosophical phrase, a thing does not exist except if all the aspects of non-existence are impossible for it. Among all the aspects of non-existence, is the non-existence of a thing, due to the non-existence of all its causes. This aspect is not impossible except if a being necessary in itself is among all the causes of that thing.

first without being a cause or a cause without being first.

I do not know who told these writers that the word 'cause' requires a cause prior to it. It is true that the causal explanation always requires two terms, the cause and the effect, and it is also true that it is contradictory to think of a cause without an effect produced by it; otherwise, it would not be a cause but a sterile thing. Similarly, it is false to think of an effect without a cause. Each the cause and the effect requires the other next to it. However, the cause as a cause does not require a cause prior to it. Rather, it requires an effect.

Thus, both terms are available in the assumption of 'the first cause'. This is because the first cause has its effect which proceeds from it, and the effect has its first cause. The effect does not always require an effect that proceeds from it, for a phenomenon may proceed from a cause without a new thing proceeding from that phenomenon. Similarly, the cause does not require a cause prior to it. Rather, it requires an effect of itself.(١)

Chapter Four: Matter or God

point

In the previous chapter(٢), we reached the conclusion that the highest and most primary principle of the universe or the world in general is a cause necessary in essence, to which the chain of causes leads. Now, the new question is this: 'Is that which is necessary in essence and which is considered

p:۴۰۴

Dr Muhammad 'Abd ar-Rahiman Marhaba, al-Mas'ala al-Falsafiyya, Manshurat - ١ .'Uwaydat, p. ٨٠

This chapter deals with the question 'Is it matter or God that is the ultimate source -٢ of the universe?' Neither the outline at the beginning of the book in the section titled 'The Nature of the Work', nor the present title makes it clear that the discussion in this chapter is intended to center on this issue. However, as soon as one reads the first paragraph of this chapter, it becomes clear that this is exactly what is intended

the first source of existence matter itself or something else beyond the limits of matter?' Putting this question in a philosophical form, we say: ' Is the efficient cause of '?the world the same as the material cause, or it is not

For the purpose of clarification, we take the chair as an example. The chair is just a specific quality or form produced by a specific organization of a number of material .parts. That is why the chair cannot exist without a matter of wood, iron or the like

Because of this, the wood is called a material cause of a wooden chair, since it is impossible for the wooden chair to exist without it. But it is very clear chat this material cause is not the real cause which is responsible for making the chair. The real .agent of the chair is something other than its matter. it is the carpenter

For this reason, philosophy gives the carpenter the name 'efficient cause'. The efficient cause of the chair is not the same as its material cause, be that wood or iron. Thus, if we are asked about the matter of the chair, we answer that it is the wood. If, (p. ٩٨٨) on the other hand, we are asked about the maker of the chair (the efficient cause), we do not answer that it is the wood. Rather, we say that the carpenter makes .it with his tools and by his own methods

Therefore, the difference between the matter

and the agent of the chair (philosophically speaking, between the material cause and the efficient cause) is fully clear. Our main purpose with respect to this issue is to show the same difference between the world's primary matter (the material cause) .(and its real agent (the efficient cause

Is the agent or maker of this world something external to the limits of matter and different from matter, as the maker of the chair is different from the wooden matter; or is it the same as the matter of which the existents of this world are composed? This is the issue that will determine the last stage of the philosophical conflict between theology and materialism. The dialectic is nothing but one of the unsuccessful attempts that materialism makes to unite the efficient cause and the material cause .of the world, in accordance with the laws of dialectical contradiction

In keeping with the procedure of this work, we will discuss the present issue in a philosophical study of matter in light of scientific facts and philosophical rules, .avoiding philosophical depth in the discussion and details in the presentation

Matter in Light of Physics

point

There are two scientific notions of matter that scientists have investigated and studied for thousands of years. One of these notions is that all the material things that are known to exist in nature are composed of nothing but a limited number of simple matter called 'elements'. The other notion is that matter is formed (p. ۳۳۴) of very .'small or minute things called 'atoms

The first

notion was accepted by the Greeks in general. The common view was to consider

water, air, earth and fire as simple elements, and to reduce all composite things to .them, since these elements are the primary matters of nature

Later, some Arab scientists tried to add to these four elements three more elements: sulfur, mercury and salt. According to the ancients the properties of the simple elements are marks that distinguish these elements from one another. Thus, no .simple element can change to another simple element

As for the second notion - namely, that things are composed of small atoms - it was the subject of disagreement between two theories: the theory of discrete matter [or the atomistic theory] (an-nazariyya al-infisaliyya),(۱) and the theory of continuous matter (an-nazariyya al-itisalliyya).(۲) The disjunctive theory is the atomistic theory of the Greek philosopher Democritus. It asserts that a body is composed of small parts .permeated by void

Democritus called these parts 'atoms' or 'indivisible parts'. The continuum theory is more predominant than the disjunctive theory. It was adopted by Aristotle and members of his school. According to the claims of this theory, a body does not have atoms, and it is not composed of small units. Rather, it is one solid thing that can be divided into parts, separated by division. It is not the case that prior to division it has .such parts

After this, modern physics played its role [with regard to this issue]. It studied scientifically the above two notions in light

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۱- Literally, the discrete or disjunctive theory.

۲- Literally, the continuous theory.

of its discoveries in the atomic world. Basically, it confirmed the two notions, the notion of simple elements and the notion of atoms. But it disclosed new facts in the .sphere of each of them that were unattainable earlier

Regarding the first notion, physics discovered around one hundred (p. ٣٣٥) simple elements of which the primary matter of the universe or nature in general is composed. Thus, even if the world appears at first sight as a stupendous assembly of realities and various species, still this varied, stupendous mass is reduced by scientific .analysis to this limited I number', of elements

On the basis of this, substances(١) are divided into two kinds: (١) a substance(٢) which is simple, consisting of one of those [simple] elements, such as gold, brass, iron, lead or mercury; (٢) a substance(٣) composed of two [simple] elements or of a number of simple elements, such as water, which is composed of one atom of oxygen and two atoms of hydrogen, or wood which, on the whole, is composed of oxygen, carbon and .hydrogen

With regard to the second notion, modern physics scientifically proved the theory of discrete matter, and that simple elements are composed of small or minute atoms, such that one millimeter of matter involves millions of atoms. The atom is the minute part of an element. The division of such a part leads to the disappearance of the .properties of that simple element

An atom has a central nucleus and electrical charges that move around the nucleus at

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(Text: al-ajsam (bodies -١

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(Text: al-jism (body -٣

a great speed. These electrical charges are the electrons. An electron is the unit of a negative charge. Also, the nucleus has protons and neutrons. A proton is a small particle. Every single proton unit carries a positive charge equal to the negative charge of an electron. A neutron is another kind of particle also contained in the .nucleus, and it carries no electrical charge

In light of the clear difference in the wave length of the rays (p. ٣٣۶) produced by the

bombardment of chemical elements by means of electrons, it was noticed that this difference among the elements had occurred just because of their difference with .respect to the number of electrons that their atoms have

Their difference in the number of electrons also requires their difference in the quantity of positive charge present in the nucleus. This is because the electric charges of the atom are equal. The positive charge of the atom is of the same quantity as that of its negative charge.(۱) Since an increase in the number of electrons in some elements over the number of electrons in some other elements means an increase in the units of the negative charge in the former elements, the nuclei of such elements must also contain a corresponding [increase in] positive charge. On this basis, .numbers in an ascending order were assigned to the elements

Hence, the atomic number of hydrogen is ۱. Thus, in its nucleus, hydrogen contains one positive charge carried by one proton and around

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۱ - This is so because the atom has the same number of positive and negative .charges, and so is electrically neutral

which revolves one electron having a [unit negative charge. Helium is situated higher than hydrogen in the atomic table of elements, since fits atomic number] is equal to ۲; for it contains in its nucleus twice the positive charge which is centered in the hydrogen nucleus. That is, the helium nucleus contains two protons around which .orbit two electrons. The number ۳ is assigned to lithium

The atomic numbers continue ascending until they reach uranium, which is the heaviest of all elements discovered to the present day. The atomic number of uranium is equal to ۹۲. This means that its central nucleus contains ۹۲ units of the positive charge. Also an equal number of electrons - that is, units of the negative .charge surround its nucleus

The neutrons in the nucleus do not seem to have the slightest effect on this chain of

atomic numbers, since they do not carry any charge. Rather, they affect the atomic .weight of elements, for they are equal in weight to the protons

Due to this, the atomic weight of helium, for example, is equal to the weight of four hydrogen atoms. This is because the helium nucleus contains two neutrons and two (protons, while the hydrogen nucleus contains only one proton. (p. ٣٨٧

One of the truths that science was able to determine is the possibility of the transformation of the elements into one another. Some processes of such .transformation occur in nature, while some others occur by scientific means

It has been observed that the element

p: ۴۱۰

of uranium produces three types of rays: alpha rays, beta rays and gamma rays. When Rutherford(١) examined these types, he found that alpha rays are composed of small particles to which negative electrical charges are attached. As a result of scientific tests, it became evident that alpha particles are nothing but helium atoms. This means that helium atoms proceed from the uranium atoms. In other words, the .element helium is produced from the element uranium

Similarly, after the element uranium emits alpha rays, beta rays and gamma rays, it changes gradually into another element, which is the element radium. Radium has a lighter atomic weight than that of uranium. In turn, radium undergoes a number of .elemental transformations, until it reaches the element lead

After chat, Rutherford made the first attempt to transform one element into another. He performed this by colliding the nuclei of helium atoms (alpha particles) with the nuclei of nitrogen atoms, thus producing neutrons. That is, a hydrogen atom was produced from a nitrogen atom, and the nitrogen atom was transformed into oxygen. Moreover, it was shown that it is possible for some part of the atom to change into another part. Thus, during the process of atomic division, a proton can cum into a .neutron, and via versa

Thus, the transformation of elements became one of the basic processes in science. But science did not stop at this. Rather, is began an attempt to transform matter into (p. ٣٣٨) pure energy - to strip the element completely of

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١- Ernest Rutherford, British physicist and chemist (١٨٧١-١٩٣٧). In ١٩٠٨, he was awarded the Nobel Prize in chemistry. Rutherford studied radioactivity, and decided that the rays emitted by radioactive substances are of various kinds. He called the positively charged rays 'alpha rays' and the negatively charged rays 'beta rays'. He also showed that the radiations that are not affected by a magnetic field consist of electromagnetic rays. He called them 'gamma rays'. Rutherford is known for developing the theory of the nuclear atom. According to this theory, the atom has a small nucleus at the center. The protons, the positively charged particles that give the atom its weight, are in the nucleus. The electrons, the negatively charged particles that are light and that constitute no barrier to the alpha rays, lie outside the nucleus. It is obvious that this theory is in disagreement with the Democritean view of the atom as indivisible. Finally, it should be mentioned that Rutherford was the first to transform one element into another and the first to show that an artificial nuclear reaction can be made.

the quality of materiality, in light of an aspect of the relativity theory of Einstein, who asserted that the mass of an object is relative and not fixed. It is increased with the increase in velocity.

This was confirmed by the experiments chat scientists of atomic physics made on the electrons that move in a strong electrical field and on the beta particles that are emitted from the nuclei of radioactive substances. Since the mass of a moving body is increased by an increase in the motion of that body, and since motion is nothing but-one of the manifestations of energy, the mass which is increased in that body is that body's increased energy.

Therefore, there are no two distinct elements in the universe as scientists had

believed earlier, one of which being sensible matter which is represented to us in a mass, and the other energy which is invisible and has no mass. Rather, it became .known to science that mass is nothing but concentrated energy

In his equation, Einstein says that energy is equal to the mass of muter times the velocity of light squared (E = mc۲ where E is energy, m mass, and c velocity of light). The velocity of light is equal to ۸۱۶,۰۰۰ miles per second. Also, the mass is equal to the .(energy divided by the velocity of light squared (m= E/c۲

With this, it became established that the atom with its protons and electrons is nothing in reality but concentrated energy that can be

p: ۴۱۲

analyzed and reduced to its primordial state. Thus, according to the modern analysis, energy is the substratum(۱) of the world. It is manifested in various shapes and in .numerous forms, whether sonic, magnetic, electrical, chemical or mechanical

In light of this, the duality between matter and radiation, between particles and waves, and between the appearance of electrons sometimes as matter and some other times as light was no longer strange. (p. ۳۳۹) Rather, it became somewhat .understood; since all these phenomena are [but] forms of one reality, namely, energy

Experiments confirmed in practice the soundness of these theories, since scientists were able to change matter into energy and energy into matter. Matter changes into energy by way of the union between the nucleus of the hydrogen atom and the nucleus of the lithium atom. The result of this is two nuclei of helium atoms plus energy, which is in fact the difference between the atomic weight of two helium nuclei .and the atomic weight of a hydrogen nucleus and a lithium nucleus

Energy also changes into matter by way of the transformation of gamma rays (this is the kind of ray chat has energy, but is weightless) into material particles of negative electrons and positive electrons which, in turn, are transformed into energy, if the .positive particles among them clash with the negative ones

The mightiest explosion from [any known] substance that science has been able to effect is that which the atomic and the hydrogen bombs can achieve. By means of these

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.(Text: al-asl al-'Ilmi (the scientific foundation -۱

two explosions, a part of matter is transformed into enormous energy. [The key] concept [behind] the atomic bomb rests on the possibility of the destruction of matter having heavy atoms, such that each of these atoms divides into two or more nuclei of lighter elements. This is accomplished by the destruction of the nucleus in some isotopes of the uranium element (uranium ۲۳۵), as a result of the collision of the .neutron with the nucleus

The idea of the hydrogen bomb rests on the union of the nuclei of light atoms; so that, after their fusion, they become nuclei of atoms that are heavier chart the light atoms [they originated from], such chat the new mass of these nuclei is less than the initial .formative mass. It is this difference in mass that appears in the form of energy

One of the methods for [reaching this result] is to fuse four (p. ۳۴۰) hydrogen atoms by means of incense pressure and heat to produce a helium atom plus [some] energy, which is the difference in weight between the resulting atom and the atoms that were .fused.(۱) This [corresponds to] a very small fraction [of loss] in atomic weight

I. The Conclusions of Modern Physics

.The scientific fact presented above lead to a number of conclusions

The original matter of the world is one reality common to all things existent and all phenomena of the world. This common reality appears in different shapes and takes .on various forms

All the qualities of material compounds are accidental in relation to the

.i.e., the initial atoms that were originally unfused -۱

primary matter. Thus, the quality of the fluidity of water is not essential to the matter of which water consists. Rather, it is an accidental quality. This is evidenced by the fact that water, as we have learned earlier, is composed of two simple elements that can be separated from each other, and thus return to their state of vapor. At that point, the character of water completely disappears. It is clear that the qualities that are .removable from a thing cannot be essential to that thing

The qualities of the simple elements themselves are not essential to matter either, let alone the qualities of composites. The scientific evidence for this is the previously mentioned transformation of some elements into some other elements, and the transformation of some atoms of these elements into some other atoms, whether .naturally or artificially

This shows that the qualities of the elements are only accidental qualities of matter, which is common to all simple elements. The qualities of radium, lead, nitrogen and oxygen are not essential to the matter represented in these elements, since it is (possible to transform them into one another. (p. ۳۴۱

Finally, in light of the above-mentioned facts, the quality of materiality itself also becomes accidental. It is nothing more than a kind or form of energy since, as mentioned, it may substitute this form for another; thus, matter changes into energy .and the electron into electricity

II. The Philosophical Conclusion to This

If we take these scientific conclusions into consideration, we must explore them philosophically in

order to know whether or not it is possible to assume that matter is the first cause

(the efficient cause) of the world. We do not hesitate to assert that the philosophical .answer to this issue is absolutely in the negative

This is because the primary matter of the world is a single reality common to all the phenomena and beings of the world. It is not possible that one reality has various effects and different actions. Scientific analysis of water, wood, earth, iron, nitrogen, lead and radium leads, in the final analysis, to one matter which we find in all these elements and in all those composites. The matter of every one of these things is not .different from the matter of the other

That is why it is possible to transfer the matter of one thing to something else. How then can we ascribe the variety of things and the difference in the movements of things to chat primary matter that we find in all things? If this were possible, it would mean that a single reality may have contradictory manifestations and different .orders

But this will definitely overthrow all the natural sciences with no exception; for all these sciences are based on the idea that a single reality has the same specific manifestations and laws. This was studied in detail in the previous chapter of the present investigation. We had said that the natural scientist's experiments are carried on specific subjects only. (p. ۳۴۲) In spite of

p: ۴۱۶

this, the natural scientist postulates his general scientific law, which applies to .anything whose reality is concordant with the subjects of the experiments

This is only because the subjects to which he extended the applicability of the law involve the same reality that he studied in his particular experiments. This amounts to saying that a single, common reality cannot have contradictory manifestations and different effects. If any of this were possible, it would not be possible for the scientist .to posit his general law

From this we know that the material reality which is common to the world, as science

has shown, cannot be the agent or efficient cause of the world, due to the fact that .the world is full of different phenomena and various developments

The above treats one point. Another point is this. In light of the above scientific conclusions, we learn that the properties or qualities that matter manifests in the various spheres of its existence are accidental to the primary matter or the common material reality. The properties of composites, for example, are accidental to the simple elements. Also, the properties of simple elements are accidental to the atomic .matter

Further, the property of materiality itself is also accidental, as has been stated. This is made evident by the fan that it is possible to remove every one of these properties and to detach the common reality from them. Thus, matter cannot be dynamic and an .essential cause of the acquisition of these properties or qualities

Concerning Experimentalists

Let us

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for a short while inquire about those who glorify experimentation and scientific understanding, and who declare with full pride that they do not adopt any view unless confirmed by experiments and demonstrated empirically. (They continue saying) that since the theological position is concerned with invisible things beyond the limits of the senses and experimentation, we must case it aside, concentrating on the truths and .knowledge that can be grasped in the experimental field

We would (p. ۳۴۳) ask the experimentalists, 'What do you intend by "experiment", and '?what do you mean by rejecting every doctrine not confirmed by the senses

If what is meant by their words is that they do not accept the existence of anything except if they have direct sense perception of chat thing, and they reject any idea except if they grasp its objective reality by one of their senses, then this will be a blow to the whole scientific edifice and a falsification of all the major truths that are

demonstrated by the experiments they glorify. A demonstration of a scientific truth by experimentation does not mean a direct sense perception of that truth in the scientific .field

When Newton, for example, put forth the law of general gravity in light of experimentation, he had not perceived this gravity force by any of his five senses. Instead, he discovered it by way of another perceptible phenomenon for which he found no explanation except by supposing the gravity force. He noticed that the planets do not move in

p: ۴۱۸

.a straight line. Rather, they have a circular motion

According to Newton, this phenomenon could not occur had there not been a gravity force. The reason is that the principle of essential deficiency (mabda' al-qu„rur adh-dhatiyy) requires chat a body move in a straight direction unless another manner [of movement] is imposed on it from an external force. From this, Newton obtained the law of gravity that asserts that the planets are subject to a central force, which is .gravity

If these experimentalists who advocate and glorify experimentation intend the same method by means of which the forces and secrets of the universe are discovered scientifically - namely, the study of a fixed perceptible phenomenon by experimentation and the rational inference of another thing from that phenomenon as the only explanation of the existence of that phenomenon - then this is exactly the method of demonstrating the theological position. Empirical and scientific experiments have shown chat all the qualities, developments and varieties of primary .matter are not essential; (p. ۳۴۴) rather, they are accidental

This is exemplified in the motion of the solar planets around the center. As the motion of these planets around the center is not essential for them - indeed, they naturally require a straight direction of motion, in accordance with the principle of essential deficiency - so also are the qualities of the [simple] elements and composites [not

essential to these elements and composites]. Further, since the motion of the planets ,[around the center] is not essential

p: ۴۱۹

.it made is possible to demonstrate an external force of gravity

Similarly, the variation and difference in the qualities of the common matter also reveal a cause beyond matter. The result of this is that the efficient cause of the world is other than the material cause of the world. In other words, the cause of the world is .different from its raw matter that all things share

Concerning the Dialectic

In Chapter ۲ of the present investigation, we discussed the dialectic and pointed out the main errors on which it rests, such as its discarding the principle of non-contradiction, and the like. Now we wish to prove that it failed once again to solve the problem of the world(۱) and to form a sound view of the world, without attention to .the errors and negligence in the principles and fundamentals of the dialectic

According to the dialectic, things are the result of motion in matter, and the motion of matter is an essential product of matter itself, since matter contains contradictions that undergo internal struggle. Let us examine this dialectical explanation by applying it to the scientific truths that we have already learned about the world, so that we can .see the consequence

Simple elements are of different kinds. Every simple element has an atomic number that pertains to it. The higher the element, the larger is its number. This goes on until the progression reaches uranium, which is the highest and most superior element. .Science has also shown that the matter of these (p

p: ۴۲۰

.That is, the problem of the first cause of the world -۱

simple elements is one and common to all [of them]. That is why it is possible to (۳۴۵

transform these elements into one another. But then how did the numerous kinds of ?elements arise in that common matter

On the basis of dialectical change, the answer can be summed up as follows. Maser developed from one stage to a higher stage, until it reached the level of uranium. In light of this, the hydrogen element must have been the starting point in this development, since it is the lightest of simple elements. Hydrogen develops .dialectically by virtue of the contradiction that is involves internally

By means of the dialectical development, it becomes a higher element – that is, the helium element which, in turn, contains its contradictory. Thus, the struggle between negation and affirmation, the negative aspect and the positive aspect, ignites once again, until matter enters a new stage where a third element is produced. This is how .matter continues its progression in accordance with the atomic table

With regard to this issue, this is the only explanation that the dialectic can offer as a justification of the dynamism of matter. However, it is very easy to see why this explanation cannot be adopted from a scientific point of view. If hydrogen were to contain its contradictory essentially and to develop due to this fact, in accordance with the alleged dialectical laws, then why is it that not all the hydrogen atoms were completed? [In other words], why did the essential

?completion pertain to some atoms and not to others

Specification is foreign to essential completion. If the factors that lead to development and progression were present in the innermost nature of the eternal matter, the effects of these factors would not be different, or would they be limited to a specific group of hydrogen [atoms], transferring them into helium, while leaving aside other .[hydrogen [atoms

If the hydrogen nucleus (the proton) were to carry within itself its own negation, and if it were to develop in accordance with this, until it becomes two protons instead of

one, water would have been completely eradicated from the face of the earth. This is because if nature loses the nuclei of the hydrogen atoms, (p. ۸۴۶) and if all these nuclei .become nuclei of helium atoms, it will not be possible to have water after this

What then is the cause that makes the development of hydrogen to helium limited to a specific quantity [of hydrogen atoms], while setting the rest free from the fetters of ?this inevitable development

The dialectical explanation of composites is no more successful than the dialectical explanation of simple elements. If water had come into existence in accordance with the dialectical laws, this would mean that hydrogen can he considered as an affirmation, and that this affirmation produces its own negation by its production of .oxygen

Later, the negation and the affirmation come together in a unity that is water. We can also reverse the consideration, thus supposing oxygen as an

p: ۴۲۲

affirmation, hydrogen as a negation, and water as a union that involves both the negation and the affirmation, and that emerged as a progressive product of the dialectical struggle between the two. Can the dialectic show us that if this dialectical progression were to come about in an essential and dynamic form, why then is it limited to a specific quantity of the two elements, and does not occur to every ?[hydrogen and oxygen [atom

By this, we do not mean to say that the invisible hand is what starts all the natural processes and varieties, and that there is no room for natural causes. Rather, we believe that such varieties and developments are the product of natural factors which are external to the essential content of matter. These factors run in a chain until, in the final philosophical analysis, they reach a cause beyond nature and not matter .itself

The conclusion is that the unit of the primary matter of the world which, on the one

hand, science demonstrates and, on the other hand, shows that its different varieties and tendencies are accidental and not essential, discloses the secret of the philosophical position and shows that the highest cause of all these varieties and tendencies does not lie in (p. ۳۴۷) matter itself; rather, it is a cause outside the limits of nature. All the external natural factors that cause variety in, and determination of, the .tendencies of nature are attributed to that highest cause

Matter and Philosophy

,In our demonstration of the theological position

our starting point was matter, in the scientific sense, whose common and accidental qualities in relation to it were proved by science. Now, we wish to study the theological position in light of the philosophical notion of matter. For this purpose, we must know .what matter is, and what its scientific and philosophical notions are

By 'the matter of a thing', we mean the principle of which the thing is constituted. Thus, the matter of a bed is wood, the matter of a robe is wool, and the matter of paper is cotton, in the sense that wood, wool and cotton are the things of which the bed, the robe and the paper are constituted. We often specify the matter of a thing, and then go back to that matter, trying to know its matter - that is, the principle of which it is constituted,. In turn, we take up this principle, and also discuss its matter .and principle

Thus, if we are asked about the constituents of a village, we answer that they are a number of buildings and yards. Therefore, the buildings and yards are the matter of a village. The question then is repeated as to what the matter of those buildings and yards is. The answer is that they are composed of wood, brick and iron. Thus, we posit a matter for everything, and then we posit a principle for that matter out of which that matter is constituted. In this progression, we must stop at a

.primary matter. This is the matter for which no matter can be posited

Due to this, the question arose in philosophical and scientific circles as to the primary and fundamental matter of the world at which the analysis of the principles and matters of things stops. (p. ۳۴۸) This is considered one of the most important questions .in human thought, whether scientific or philosophical

By 'scientific matter' is meant the most primary matter discovered by experimentation. It is the most primary principle [attained] in scientific analyses. By 'philosophical matter', on the other hand, is meant the most primary matter of the .world, whether or not its appearance in the experimental field is possible

We have already discussed scientific matter. We learned that the most primary matter attained by science is the atom with its nucleus and electrons that are a specific density of energy. In the scientific sense, the matter of a chair is wood, and the matter of wood is the simple elements that constitute the wood. These are .oxygen, carbon and hydrogen

The matter of these elements is the atoms. The matter of the atoms is their specific parts of protons, electrons and other [subatomic particles].(۱) This atomic assembly, or dense electric charges, is the most primary scientific matter that science .demonstrated by experimental methods

Regarding philosophical matter, let us see whether the atom is in reality the most primary and the simplest matter of the world, or whether, in turn, it is also composed ,of matter and form. As we learned

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.Such as the neutrons -۱

the chair is composed of matter that is the wood, and form that is its specific shape. Also, water is composed of matter that is oxygen and hydrogen atoms, and form that is the quality of fluidity that occurs at the point of the chemical composition between

the two gases. Thus, are the minute atoms also the philosophical(۱) matter of the ?world

The common philosophical view is that philosophical matter is more primary than scientific matter, in the sense that the former matter in scientific experiments is not the most (p. ۳۴۹) fundamental matter from the philosophical point of view. Rather, it is composed of a matter simpler than it, as well as of a form. This simpler matter cannot be demonstrated by experimentation; but its existence can be demonstrated .philosophically

Correction of Errors

In light of what has preceded, we can know that the Democritean atomistic theory, which asserts that the primary principle of the world is nothing but indivisible fundamental atoms, is two-sided: one side is scientific and the other philosophical. The scientific side is that the structure of bodies is composed of small atoms .permeated by void

Bodies are not continuous masses, even though they may appear as such to our senses. Those small units are the matter of all bodies. The philosophical side is that Democritus claimed that those units or atoms are not composed of matter and form, since they have no matter that is more primary and simpler than they. Therefore, those units or atoms are the philosophical matter

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.(Text: al-madda al-'ilmiyya (scientific matter -۱

.that is, the most primary and the simplest matter of the world -

These two sides of the theory were confused by many thinkers. It seemed to them that the atomic world discovered by modern science through experimental methods demonstrates the soundness of the atomistic theory. Thus, after the new atomic world was revealed to science, it was not possible to find Democritus at fault in his explanation of bodies, as earlier philosophers believed, even though modern scientific

thought differs from chat of Democritus with regard to the estimation of the size of .the atom and in portraying its structure

However, the fact is that modern scientific experiments concerning the atom demonstrate only the soundness of the scientific side of the Democritean theory. They show that a body is composed of atomic units permeated by void. The body, therefore, is not continuous as sense perception indicates. This is the scientific aspect of (p. ٣٥٠) the theory. Experimentation can disclose this aspect. Philosophy has no say in this subject, since, from a philosophical point of view, a body may be continuous as .it may involve a void permeated by minute parts

As for the philosophical side of the Democritean theory, it is not at all touched by scientific discoveries, nor is its soundness proved by them. Rather, the issue of the existence of a matter simpler than the scientific matter remains the responsibility of philosophy. This means that philosophy can take the most primary matter that science attained in the experimental field (namely, the

p: ۴۲۷

atom and its specific aggregate), and prove that it is composed of a simpler matter and of a form. This is not incompatible with the scientific facts for this type of .philosophical analysis and synthesis cannot be displayed in the experimental field

As these thinkers erred in claiming that scientific experiments demonstrate the soundness of the whole theory, even though such experiments are only concerned with its scientific side; so also did a number of ancient philosophers err in rejecting the philosophical side of the theory - thus extending the rejection to the scientific side as well. They claimed without any scientific or philosophical evidence that bodies are .continuous, and rejected the atom and the void in the interior of bodies

The position that we must hold with respect to this issue is one of accepting the scientific side of the theory, which insists that bodies are not continuous and that they are composed of extremely minute atoms. Atomic physics disclosed this side with certitude. But we reject the philosophical side of the theory, which asserts the

simplicity of those units that are disclosed by atomic physics. The reason is that philosophy proves that regardless of the minuteness of the unit disclosed by physics, it is nevertheless composed of form and matter. We call this matter (p. ۳۵۱) by the name of philosophical matter, since it is the simplest matter whose existence is demonstrated by a philosophical, and not a scientific, method. It is time for us to study .this philosophical method

The Philosophical Notion of Matter

Since

p: ۴۲۸

the issue under consideration is philosophical and to some extent sensitive, we must move carefully and slowly in order for the reader to follow our move. That is why we will begin first of all with water, a chair and the like, so that we know why philosophy is .correct (in asserting) that such things are composed of matter and form

Water is represented in a fluid matter. At the same time, it is receptive to being a gas. The basis of this receptivity is not the fluidity, for the quality of fluidity cannot be a gas. .Rather, this basis is the matter contained in the fluid water

Therefore, water is composed of the state of gas and of a matter characterized by this state. This matter is also receptive to being a gas. Again, the chair is represented in certain wood given a specific shape. It is also receptive to being a table. It is not the .shape but the matter of the chair that is receptive to being a table

From this, we learn that the chair is composed of a specific shape and of a wooden matter that can be a cable, as it had the capacity to be a chair. The same is true in every field. If one notices that a specific being is capable of receiving the contradictory of its proper quality, philosophy proves by means of this that that being has a matter, which is the thing receptive to the quality that is contradictory to

p: ۴۲۹

.its proper quality

Let us explore our issue in light of this. We had learned that science has shown that a body is not a single thing. Rather, it is composed of primary units swimming in a void. Since these units are the remainders at the end of the scientific analysis, they are not, in turn, composed of atoms that are smaller than they; otherwise, they will not be the .ultimate units (p. ۳۵۲) of matter. This is true

Philosophy gives science full freedom in assigning the ultimate units that are not permeated by a void and that have no parts. When science assigns these units, it becomes time for philosophy to play its role. Philosophy proves that such units are composed of form and matter, which are simpler than [the unit]. We do conceive a discrete material unit, for if such a unit were not truly continuous, it would be similar to .a body in having a void permeated by parts

The meaning of a unit is that it is continuous; it cannot be a real unit without continuity. At the same time, it is also receptive to division and separation. But it is clear that that which is receptive to division and separation is not the same as continuity which is essential to the material unit. This is because continuity cannot be characterized by separation, as it is not possible for fluidity to be characterized by .gaseousness

Therefore, the unit must have a simple matter which is receptive to

p: ۴۳۰

division and separation. This leads to the consideration of the unit as composed of matter and form. Matter is that which is receptive to division and separation that are destructive of unity. Similarly, matter is also receptive to continuity that holds the unit together. The form, on the other hand, is this very continuity without which no .material unit can be conceived

The problem that faces us at this point is this: 'How can philosophy determine that the primary units of matter are receptive to division and separation, and is there a way to

this determination other than through scientific experimentation?' But scientific experimentation has not proved the receptivity of the primary units of matter to division and separation.

Once again we stress the necessity of not confusing scientific matter with philosophical matter. This is because philosophy does not claim that the division of the unit is something accessible to the scientific tools and methods available to human beings. Such a claim is the sole prerogative of science. Rather, philosophy proves that every unit is receptive (p. ۳۵۳) to division and separation, even though it is not possible to attain this division externally with scientific methods. It is not possible to conceive a unit without the receptivity to division; that is, it is not possible to conceive an indivisible part.

Physics and Chemistry as Concerned with the Part

The issue of the indivisible part is not a scientific issue. Rather, it is purely philosophical. From this, we realize that the scientific methods and facts adopted for responding to this issue and

for demonstrating the existence or non-existence of indivisible parts are not at all sound. We will now point out some of these unsound methods and facts.

a. The law of proportions that Dalton(۱) put forth in chemistry for the purpose of explaining that the chemical union of elements occurs in accordance with specific proportions. Dalton(۲) based this law on the idea that matter is composed of small, indivisible particles.

It is clear that this law operates only in its special field as a chemical law. It is not possible to solve a philosophical problem with it, for the utmost it shows is that chemical reactions and combinations cannot take place except among specific quantities of elements and under specific circumstances and conditions. If there are no specific quantities and proportions, there will be no reaction and no combination.

However, this law does not show whether or not these quantities are as such receptive to division. We must, therefore, distinguish between the chemical aspect of this law and the philosophical aspect of it. With respect to the chemical aspect, it affirms that the property of chemical reaction occurs among specific quantities and cannot occur among smaller quantities. With respect to the philosophical aspect, on the other hand, the law does not affirm whether or not those quantities are indivisible (parts. This has no relation at all to the chemical aspect of the law. (p. ۳۵۴

b. The first stage of atomic physics in which the atom was discovered. It seemed to some

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Text: waltun. Even though there is an Irish physicist by the name of Ernest Walton -۱ (۱۹۰۳-) who won the Nobel Prize in physics in ۱۹۵۱, the physicist intended here must no doubt be Dalton and not Walton. The theory of proportions in chemistry discussed .here was introduced by Dalton and not by Walton

.Text: waltun -۲

that physics at that point had put an end to disputation concerning the issue of the indivisible part, since it disclosed this part by scientific methods. But in light of the above, it is clear that this disclosure does not confirm the indivisible part, in the philosophical sense. The fact that scientific analysis arrived at the atom that it cannot .divide does not mean that the atom as such is indivisible

c. The second stage of atomic physics which, contrary to the first stage, was considered as absolute evidence for the non-existence of the indivisible part. This is because at the second stage, science was able to divide and split the atom. With this, the idea of the indivisible part disappeared. This stage was the same as the previous one in that it was not related to the issue of the indivisible part from the philosophical .point of view

The reason is that the division of the atom or the destruction of its nucleus changes nothing except our idea about the part, but does not completely overthrow the theory

of the indivisible part. The atom, which cannot divide, in the sense inconceivable to Democritus, or in the sense on the basis of which Dalton(١) posited the law of proportions in chemistry, has disappeared as a result of the splitting of the atom.

This does not mean that the problem has ended. The primary units in the material world (that is, the electric charges, whether in the form of atoms or

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١- Text: waltun.

material bodies, or in the form of waves) are subject to the philosophical question as to whether or not they are receptive to division. (p. ۳۵۵)

Philosophy as Concerned with the Part

point

Thus, our study has made it clear that the problem of the part must be solved by a philosophical method. Philosophy has many methods for demonstrating philosophically that every unit is receptive to division, and that there is no indivisible part. One of the clearest methods is to draw two circles like a stonemill, one of which is inside the other, with the middle point of the stonemill being the center of the two circles.

Then we put a point at a specific place on the circumference of the big circle and a point parallel to it on the circumference of the small circle. It is clear that if we move the stonemill, the two circles also move. Let us move the stonemill, making the point which is placed on the big circle move in accordance with that movement. But we do not allow, this point to move except as much as one of the material units moves.

Then we observe the parallel point on the small circle, asking whether it has crossed the same distance that was crossed by the parallel point on the big circle -namely, one whole unit. Or has it just crossed some of that distance? If it has crossed the same distance, this would mean that the two points moved the same distance. But

this is impossible, because we know

that the more remote a point is from the main center of a circle, the faster is the speed of its movement. That is why in every turn, it crosses a longer distance than .that which a point closer to the center crosses in the same turn

Therefore, it is not possible for the two points to cross an equal distance. If, on the other hand, the closer point crosses a part of the distance that is crossed by the remote point, this would mean that the unit crossed by the remote point may be .divided and separated and is not an indivisible unit

This makes it clear that those advocating the indivisible unit are in a difficult position, for they cannot consider the remote (p. ۸۵۶) and the close points either as equal or as different in the quantity of motion. The only thing that remains for them is to claim that the parallel point on the small circle was at rest and motionless. But all of us know that if the circle close to the center was at rest when the big circle moved, this would .necessitate the dismantling and breaking of the parts of the stonemill

This proof shows that any supposed material unit is receptive to division. The reason is that when the point chat is remote from the center traverses this unit in its motion, .[the close point would have traversed a part of it [only

If the material unit is receptive to division and separation, it

is, therefore, composed of a simple matter which is the center of the receptivity to division and of continuity which is constitutive of its unity. Hence, it is clear that the .units of the material world are composed of matter and form

The Philosophical Consequence

When the philosophical notion of matter, which requires that matter be composed of matter and form, is crystallized, we know that the philosophical(۱) matter cannot itself

be the first cause of the world, since it is composed of matter and form. Further, neither matter nor form can exist independently of the other. Therefore, there muse be an agent prior to the as of composition that ensures the existence of the material .units

Put differently, the first cause is the first point in the chain of existence. The chain of existence must begin with that which is necessary in essence, as we learned in the previous chapter of this investigation. Thus, the first cause is that which is necessary in essence. (p. ۸۵۷) Being so, the first cause muse need nothing else in its being and .existence

As for the primary units of matter, they are not without need in their material being for an external agent, since their being is composed of matter and form. They require both, matter and form together, and each, matter and form, requires the other for its existence. The result of all this is the knowledge that the first cause is external to the ,limits of matter, and that the philosophical matter of the world

p: ۴۳۶

.(Text: al-'ilmiyya (scientific -۱

which is receptive of conjunction and disjunction, is in need of an external cause that .determines its continuous or discontinuous existence

Matter and Motion

Matter is in continuous motion and constant development. This is a fact on which we all agree. Further, matter requires a cause that moves it. This is another fact admitted with no disputation. The most basic issue regarding the philosophy of motion is this. Can the matter in motion be the cause or agent of its motion? In other words, that which moves is the subject of motion, while the mover is the cause of motion. Can the same thing in the same respect be simultaneously a subject of motion and a cause of ?it

Metaphysical philosophy responds to this question by insisting that the multiplicity of

that which moves and the mover is necessary. This is because motion is a gradual development and completion of a deficient thing. A deficient thing cannot by itself .develop and complete itself gradually, for it cannot be the cause of completion

On the basis of this, a dual principle of the mover and the moving thing was posited in the philosophical notion of motion. In light of this principle, we can know that the cause of the developmental motion (p. ?۳۵۸) of matter is not at heart and in substance matter itself, but a cause beyond matter that provides matter with continuous .development, and that emits to matter linear motion and gradual completion

Dialectical materialism is the contrary of this. it does not admit a

duality between the moving matter and the cause of motion. Rather, it considers .matter itself as a cause of its own motion and development

Thus, there are two explanations of motion. In the dialectical explanation, which considers matter itself as a cause of motion, matter is the most primary source of the development of completion. This imposes on the dialectic the view that matter essentially involves the stages and completions that motion attains in its renewable .march

The secret behind the fact that the dialectic is required to adopt this view is [its need to] justify the material explanation of motion, for the cause or source of motion cannot but essentially involve development and completion chat it provides and .extends to motion

Moreover, since, according to the dialectic, matter is the cause of its own motion and the driving force behind matter in the field of development, it becomes incumbent on the dialectic to acknowledge that matter has the properties of causes or agents, and to consider it as essentially involving all the contradictions that motion gradually .attains; so that it can be a source of completion and a primary provider of motion

That is why the dialectic admitted contradiction as a necessary consequence of its

philosophical progression. It rejected the principle of non-contradiction and claimed that contradictories always come together in the internal content of matter, and that .by virtue of this internal resource, matter is a cause of motion and completion

As for the theological explanation of motion, it begins

p: ۴۳۸

with an inquiry about these contradictories which the dialectic alleges to be contained in matter. Are all these contradictories in matter in actuality, (p. ۳۵۹) or are they in it in potentiality? The former option is completely rejected, for contradictories cannot, due to the principle of non-contradiction, come together in actuality. If they come .together in actuality, matter will come to a standstill and rest

There remains the latter option: namely, that these contradictories are [in matter] in potentiality. By 'their potential presence' is meant that matter has the capacity to receive gradual developments, and the possibility for linear completion by motion. This means that the internal content of matter is empty of everything other than .receptivity and capacity

In light of this, motion is a gradual departure from potentiality to actuality in the field of continuous development. Matter is not the cause behind motion, for matter is empty of the levels of completion attained by the stages of development and motion, and has nothing but the possibility and capacity for these levels of completion. It is, therefore, necessary to search for the cause of the substantial motion of matter and for the primary source of this motion outside the limits of matter. It is also necessary that this cause be God, the exalted, Who contains essentially all the ranks of .completion

[Matter and Sentiment [al-wijdan

Our position regarding nature, which is rich in evidence for intention, purpose and governance, is similar to the position of a worker who discovers in his excavations sensitive systems

hidden in the earth. This worker will not doubt that there is an artistic hand that put those systems together with all precision and care for the purpose of realizing certain .aims by means of them

The more this worker knows new facts about the precision with which these systems were made, and the signs of art and innovation in them, the more highly does he think of the artist who constructed them, and the more appreciative of that artist's brilliance and intellect does he become. Similarly, we take the same position that human nature and sentiment suggest with regard to nature in general, seeking from (p. ۳۶۰) the secrets and signs of nature inspiration about the greatness of the wise Creator Who created it, and about the sublimity of the intellect from which it .proceeded

Nature, therefore, is a marvelous artistic portrait, and the natural sciences are the human instruments that uncover the types of innovation in this portrait, that raise the curtain to show its artistic secrets, and chat supply the general human heart with one evidence after another for the existence of the governing and wise Creator, and for .His greatness and perfection

Whenever these instruments achieve a victory in their various fields or disclose a secret, they supply metaphysics with a new force and provide the human race with a new evidence for the innovative, creative greatness that created and organized this .eternal portrait with what calls for astonishment, wonder and glorification

Thus, the facts declared by

modern science leave no room for doubt concerning the issue of God, the omnipotent and the wise. If the philosophical proofs fill the mind with certainty and acceptance, modern scientific discoveries fill the soul with confidence and faith in the divine .providence and the metaphysical explanation of the first principles of existence

Take, [for example,] the human physiology with its astonishing facts. You see in it the Creator's greatness and precision in all the details that this physiology reveals and the secrets that it shows. The digestive system, for instance, is the greatest chemical factory in the world for its various methods of analyzing chemically the different nutrients in a manner that brings wonder, and for justly distributing the proper .nutritive elements to billions of living cells of which the human body is composed

Every cell receives the amount of nutrients it needs. These nutrients are then transformed into bone, hair, teeth, nails, nerves, (and so on,] in accordance with a given plan for the functions imposed on these cells in a system no more precise than (which, or greater than which, is known to humanity. (p. ۳۶۱

One glance at these living cells, which carry the secret of life, fills the soul with astonishment and wonder over the cells' adaptation to the requirements of their position and circumstances. It is as if every cell knows the structure of the organ whose preservation it sustains by the help of other cells sharing with it that organ, and comprehends that organ's function, and

p: ۴۴۱

.how that organ must be

The system of the visual sense, which is small and insignificant in size, is no less beautiful and precise than the digestive system, and it is no less of a sign of a conscious will and a creative intellect. It is composed with full exactitude. Sight cannot .be attained in the absence of any part of this system

The retina, for example, on which the lens reflects the light is composed of nine separate layers even though it is no thicker than thin paper. The last of these layers is also composed of thirty million rods(۱) and three million cones.(۲) These rods and cones are organized in an accurate and magnificent manner. However, the light rays are represented on the retina in an inverse position. That is why the creative Providence willed that the visual system behind the retina must be provided with

millions of nerve sacs that are responsible for some chemical changes that finally lead .to grasping the image in its proper position

Can this colossal planning, which ensures that the act of vision falls among the best acts of matter, be without guidance and purpose, even though the mere discovery of ?it requires strong intellectual efforts

Matter and Biology

Now, consider biology, or the science of life. You will find another great divine secret: namely, the vague secret of life, which fills the human heart with confidence in the theological notion and with solid conviction about it. In night of the science of life, the theory of self-procreation

p: ۴۴۲

.A rod is one of the rod-shaped sensory bodies of the retina used in dim light -۱

.A cone is any of the sensory bodies of the retina used in color vision -۲

collapsed. (p. ۳۶۲) This theory prevailed in the materialistic mentality and was .accepted by the superficial and the vulgar in general

They illustrated this theory by many examples of insects (sic], such as the worms that are formed in the intestines or in a piece of meat subjected to air for a while, as well as other examples inspired by the naivete of materialistic thinking. Such things, according to them, appear to be reproduced by themselves under specific natural circumstances, and without proceeding from other living beings. However, decisive scientific experiments proved that this theory is false, and that worms are reproduced .by the germs of life that are contained in the piece of meat

Materialism attempted once again to establish the theory of selfprocreation when Anton van Leeuwenhoek(۱) invented the first composite microscope. By means of this microscope, Leeuwenhoek discovered a new world of small organisms. This microscope succeeded in showing that a raindrop has no germs. Rather, the germs .are produced after the raindrop touches the earth

The materialists raised their voices and rejoiced in the new victory in the field of microbiology, after they had failed to discount the sperm, and to establish the theory of self-procreation with regard to animals visible to the naked eye. Thus, they .returned to the battleground, but [this time, their disputation was] on a lower level

The debate between the materialists and others concerning the formation of life .continued up to the nineteenth century, when Louis Pasteur put an end to his conflict

p: ۴۴۳

Anton van Leeuwenhoek, Dutch biologist and microscopist (۱۶۸۲-۱۷۲۳). He is best - ۱ known for constructing many microscopes, for discovering the one-celled animals .tailed 'protozoa', and for being the first to see the bacteria

By his scientific experiments, he proved that the germs and microbes that live in water are independent organic beings that come to water from the outside, and then .reproduce in it

Once more, the materialists tried to cling to a thread of illusory hope. (p. ۳۶۳) Thus, they abandoned the fields in which they failed and moved to a new field: namely, the field of fermentation. In this field, some of them attempted to apply the theory of self-.procreation to the microscopic organic beings that are the cause of fermentation

However, soon enough this attempt, like those before it, was also shown to be a failure at the hands of Pasteur, when he showed that fermentation does not take place in matter if matter is kept by itself and in isolation from the outside. Rather, fermentation occurs due to the transmission of specific organic beings to it and their .reproduction in it

Thus, in the final analysis, it was shown to be true of all kinds of animals, including the minute animals that were recently discovered and that cannot lx seen by the regular microscope, that life does not proceed except from life and that it is the sperm, and not self-procreation, which is the general law that prevails in the realm of living .beings

The materialists are in a difficult position with regard to this decisive conclusion. The reason is this. If the theory of self-procreation is dropped, in light of scientific research, how then can they explain the arising of life

on the face of the earth? Further, would there be a way for the human heart after that to shut off its eyes in the light and to overlook the clear, divine reality that trusted the secret of life to the primary cell or cells? If this were not so, why then did nature ?turn away forever from the act of self-procreation

This means that if the materialistic explanation of the primary cell of life by selfprocreation were correct, how could materialism then explain the nonrecurrence of self-procreation in nature with the tong passage of tune? Indeed, this is a .perplexing question for the materialists

It is curious that the Soviet scientist Obern,(۱) responds to this question as follows. [Even] if the production of life by way of along material interaction is still possible in planets other than ours (the earth), there is no room for it on this planet, since reproduction here (p. ۳۶۴) began to occur at a faster and a shorter [rate than that of production of life by way of material interaction], this being human reproduction by way of marriage. The reason is chat the new interaction replaced the biological and (chemical primitive interaction, rendering it unnecessary.(۲

This is Obern's complete answer to the question. It is indeed a strange answer. Reflect on how he judges that nature has no need for the operation of self-procreation, since this operation became unnecessary once nature found a faster and a shorter way for reproducing life. It is as

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.Obern: we are unable to identify this scientist -۱

.Qissat al-Insan p. ۱۰ -۲

if he speaks of a conscious rational power that abandons a difficult operation after its

attainment of the goal was made available to it by means of an easier way. But when ?did nature abandon its decrees and laws for this purpose

Further, if self-procreation took place at first, in accordance with certain laws and decrees, as water is produced due to a certain chemical composition between oxygen and hydrogen, it becomes necessary for it to be repeated in accordance with those laws and decrees, as the existence of water is repeated whenever certain chemical factors are present, whether or not water is necessary; for necessity in the natural sense is merely the necessity produced by the laws and decrees of nature. What then ?made those laws and decrees different

Matter and Genetics

Let us leave this issue to genetics, which captivates human thought, and to which mankind bows with respect and admiration. It is rather astonishing to know that the whole organic heritage of an individual is contained in living nuclear matter (protoplasm)(١) of the reproductive cells, and that all the inherited traits are produced by very small microscopic segments [of this matter]. (p. ٣۶۵) These are the genes which are contained in that living matter with precision and order. Science has shown that this matter is not produced from bodily cells, but from the protoplasm of the .parents, grandparents and so on

In light of this, the Lamarckian(٢) illusion collapsed. On the basis of this illusion, Lamarck established the theory of evolution

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١- Protoplasm is a complex of protein, organic and inorganic material, and water that .constitutes the living nucleus of a cell

٢- Text: Darwinian. "Progress" is not part of Darwins theory of evolution nor is ٢ "inheritence of acquired traits". Darwin himself wrote extensively against these notions to refute them in his "Origin of species". Therefore what is obviously being referred to here by Ayatullah as-Sadr is instead Lamarck's theory of evolution which preceded Darwin's. Ayatullah Baqir As-Sadr accidently wrote "Darwin" instead of

."Lamarck" here

and progress. This theory states that the changes and traits acquired by the animal during his life – whether as a result of experience and training or as a result of interaction with the environment or a certain kind of nourishment – may be transferred by heredity to his offspring.

This is so because, on the basis of the distinction between bodily cells and reproductive cells, it was proved that acquired traits cannot be inherited. That is why the defenders of the theory of evolution and progress were obliged to denounce almost all the Lamarckian principles and details, and to offer a new hypothesis in the field of organic development. This is the hypothesis that species develop by means of mutations.

As to the present day, scientists do not have scientific support for this theory other than the observation of some manifestations of sudden change in a number of cases. This called for the assumption that animal species develop from mutations of this sort, in spite of the fact that the observed mutations in animals did not reach the point of forming the various basic changes, and that some of the sudden changes were not inherited.

We are not concerned with discussing this kind of theory. Rather, our purpose is to point out the precise hereditary system and the astonishing power in the minute genes, which gives direction to all the cells of the body and provides an animal with its personality and traits. Is it possible, according to human sentiment,

that all of this occurs haphazardly and by chance? (p. ۳۶۶)

Matter and Psychology

Finally let us examine psychology for a moment, in order to overview another field of divine creativity. In particular, let us pay attention to one of the psychological issues, namely, that of the instincts that light the animals' way and guide their steps.

These instincts are clear signs in the heart that the providing of such instincts to animals is the action of a wise governer, and is not a fleeting coincidence. If this were not so, then who taught the bee to build hexagonal beehives, the shark to build river dams, and the ants to do marvelous things in setting up their homes? Indeed, who taught the eel not to lay her eggs except in a certain spot at the bottom of the sea, where the ratio of salt is almost ۳۵ percent, and the distance from the surface of the sea is no less than ۱ ۲۰۰ feet? The eel makes sure to deposit her eggs on such a spot, .since her eggs cannot grow except when the above two conditions are met

An interesting story is told about a scientist who made a specific system which he supplied with appropriate heat, water vapor, and other conditions necessary for the natural process of producing chicks from eggs. He placed in this system some eggs that could give him chicks, but he did not obtain the desired result. He learned from this that his study of the conditions of natural

p: ۴۴۸

.reproduction was not complete

Thus, he carried out further experiments on the hen when incubating the eggs. After very careful observations and tests, he discovered that, at specific times, the hen changes the position of the eggs and switches them from one side to the other. Once again, he performed the experiment in his specific system, acompanying it with what .he learned from the hen. The experiment then was met with splendid success

By your conscience, tell me who taught the hen this secret that is concealed from this (p. ۳۶۷) great scientist? Or who inspired her with this wise act without which ?reproduction cannot occur

If we wish to study instincts more profoundly, we must exposit the most important .theories, interpret and explain them. There are many such theories

The first theory is chat animals were led to instinctive acts after many trials and experiences. They became addicted to them; thus, such aces became inherited habits

transmitted from parents to children, without there being room in learning them for .supernatural providence

This theory consists of two parts, the first of which is that animals, to begin with, reached instinctive acts by way of trial and experience. The second is chat such acts .were transmitted to successive generations, in accordance with the law of heredity

But neither part can be accepted. The first is incorrect, because the animal's discarding of an erroneous trial and his adoption and retention of a successful one means that he comprehends the success of the latter and the erroneousness of

p: ۴۴۹

the former. But this is something that cannot be granted to animals, especially if the success of a trial does not appear except after their death, as is the case with butterflies reaching the third stage of their lives. [Before this stage,] they lay their .eggs on green leaves in circles

The eggs only hatch in the third season. They come out in the form of small worms at a time when the mother has already died. How it is possible for the butterflies to comprehend their success in what they have done and know that by their actions they have prepared a large source of nourishment for the young, even though the butterflies did not witness that? Add to this that if instincts were the product of experience, this would necessitate the development, completion and strengthening of animal instincts (p. ۳۶۸) in light of other trials and experiences throughout history. Yet, .none of this has happened

The second part of the above theory is based on the idea that asserts the transmission of traits acquired by heredity. But this idea collapsed in the face of new theories in genetics, as we remarked earlier. But suppose that the law of heredity covers acquired habits. How then can the instinctive acts be inherited habits, even though some of them are performed by animals only once or a few times in their ?lives

The second theory begins where the first one also begins. It supposes that animals were led to instinctive acts by repeated

p: ۴۵۰

trials. Such acts were transmitted to successive generations, however, not by means of heredity, but by means of a kind of instruction and teaching accessible to animals.

The objection we raised to the first part of the previous theory is also applicable to the theory under consideration. But the objection that pertains to it exclusively is concerned with its claim concerning the transmission of instinctive acts by way of instruction and teaching. This claim is inconsistent with reality, even if we grant animals the power of understanding. This is because a number of instincts appear in animals at the beginning of their formation; [that is,] before there is any opportunity for teaching them. Indeed, young animals may be born after their mothers' death; nevertheless, they enjoy the same instincts enjoyed by their species. Take the eels, for example.

They emigrate from various pools and rivers to the unfathomable depths in order to lay their eggs. In their migration they may travel thousands of miles just in order to choose the appropriate spot. Later, they lay their eggs and then die. The young grow up and return to the shore from which their mothers had come. It is as if they fully study and scrutinize the world map. At whose hand did the young eels receive (p. ۳۶۹) geography lessons?

The third theory was advocated by the behavioristic school of psychology that attempted to analyze animal behavior in general into units of reflexive action. It explained instincts as complex compounds of such units

p: ۴۵۱

that is, a chain of simple reflexive actions. Thus, an instinctive [act] is something like - the withdrawal of the hand when pinched by a pin, or the contraction of the eye when encountering a strong light. But these two acts are simple and reflexive; while an

.instinct is composite and reflexive

This mechanical explanation of instincts cannot be adopted either. The reasons are many, but there is no room for elaborating them here. One of these reasons is that a mechanically reflexive movement is produced by an external cause only, as in the eye .contraction that is caused by the intensity of light

However, some instinctive acts have no external cause. What is it, for example, that causes animals at the beginning of their existence to search for their food and to make an effort to find it? Add to this that the mechanically reflexive acts cannot involve comprehension and awareness, while observation of instinctive acts gives us .decisive evidence of the comprehension and awareness involved in them

One piece of such evidence is an experiment performed on the behavior of a hornet that builds its nest from a certain number of beehive cells. The experimenter had expected that the hornet would complete its work at a certain beehive cell. At chat point, the experimenter pinched that cell with a pin. If the hornet returned to make another beehive cell and found that a human being had spoiled his work, he went back and fixed it. Thereafter, the hornet moved

p: ۴۵۲

.to make the next beehive cell

The experimenter repeated his experiment a number of times. He then realized that a succession of performing instinctive behaviors is not mechanical. He noticed that when the hornet came back and found that the completed beehive had been destroyed, it made a certain motion and emitted certain sounds that indicated the (anger and despair it felt. (p. ۳۷۰

After discounting this materialistic theory, two explanations of instinct remain. One of them is that instinctive acts are the product of intention and awareness. However, the purpose of animals is not the accurate benefits that result from such acts, but the direct pleasure in these acts themselves, in the sense that animals are composed in

such away that they derive pleasure from performing such instinctive acts, which at .the same time give them the greatest utility and benefits

The other explanation is that an instinct is a mysterious, divine, supernatural inspiration. Animals were supplied with it as a substitute for the intelligence and mind .that they lack

Whether this or that explanation is true, the signs of intention and management are clear and evident to the human heart; otherwise, how does the complete correspondence between the instinctive acts and the most accurate benefits that are ?hidden from animals occur

We stop here, but not because the scientific pieces of evidence for the theological position have been exhausted. Not even large volumes can exhaust them. Rather, we .stop in keeping with the procedure of the book

After this presentation of all

p: ۴۵۳

the evidence in the heart for the existence of the creative, wise power, let us turn our attention to the material hypothesis in order to see the extent of its naivete and .triviality in light of such evidence

When this hypothesis asserts that the universe, including its wealth of mysterious order and beauty of creation and formation, was produced by a cause that does not enjoy a bit of wisdom and purpose, it exceeds thousands of times in its naivete and oddity [the naivete and oddity of] him who finds a large divan(۱) of the most beautiful and the finest poetry, or a science book full of mysteries and discoveries, and then claims that an infant has been playing with a pencil on paper. thus, the letters .happened to get organized and formed a volume of poetry or a book of science

We shall show them our signs in the horizons and in themselves, so that it becomes clear to them that this is the truth. Is it not sufficient that your God is a witness to all (things?(۲

point

The largest philosophical issue regarding knowledge is the casting of knowledge in a philosophical form that reveals its reality and essence and shows whether it is a material phenomenon present in matter when matter reaches a certain stage of development and completion, as materialism claims, or a phenomenon free from matter and, together with its manifestations, supported by a certain kind of existence, .as it is understood philosophically in metaphysics

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In Arabic, diwan (divan) is a collection of Arabic or Persian poems. This word is used -۱ in several senses, such as 'council chamber', but it is obvious that here it is used in the .sense indicated above

.Al-Quran, XLI, ۵۸ -۲

Since Marxism is a materialistic school, it of course emphasizes the materialistic notion of thought and knowledge. This is made clear in the following texts from Marx, :Engels, Georges Politzer and Roger Garaudy, respectively

Thought is inseparable from thinking matter. This matter is the substance of all (changes.(۱) (p. ۳۷۲

Regardless of the apparent superiority of our consciousness and thought, they are (nothing but a bodily or material organic product - this being the brain.(۲

:Engels continues

It is necessary that any driving force in people passes through their brains. This is true even of food and drink which begin by a sensation of hunger or thirst. This sensation is also felt in the brain. The influences of the external world on a human being are expressed in his brain, where they are reflected in the form of sensations, ideas, (motives and intentions.(۳

The natural sciences show that a deficiency in the development of the brain of a certain individual is the biggest impediment in the face of the development of his consciousness and thought. This is the case with stupidity. Thought is a historical product of nature's development to a high degree of perfection represented in the sense organs and nervous system of the living species, especially in the highest central part which rules the whole organic being, i.e. in the brain.(۴)

The material formation of thought presents us, as we will see, with proofs that deserve to be believed and accepted.(۵)

The philosophical notion of knowledge is not the only notion

۱- al-Maddiyya ad-Dialaktikiyya wal-Madddiyya at-Tarikhiyya, p. ۱۹.

۲- Ludwig Feuerbach, p. ۵۷.

۳- Ibid., p. ۶۴.

۴- Al-Maddiyya wal-Mithaliyya fi al-Falsafa, pp. ۷۴-۵.

۵- Ma Hiya al-Madda, p. ۳۲.

of knowledge (p. ۳۷۳) worthy of research and study, for knowledge is the meeting point of many [types of] research and studies.

Every scientific discipline has its own notion that treats one of the many problems concerning knowledge, and one aspect of the secrets of the intellectual life whose mysteriousness and complexity make it exciting. Behind all these scientific notions lies the philosophical notion in which conflict between materialism and metaphysics arises, as mentioned earlier. The present issue, therefore, is the subject of different types of philosophical and scientific discussions.

Many writers and researchers fell into error [by] not distinguishing between the aspects on whose scrutiny and analysis scientific studies must concentrate and the aspect in which philosophical consideration must have its say. On the basis of this error, the materialistic claim was established, this is the claim which asserts that

knowledge in the philosophical notion of metaphysics is incompatible with knowledge .in the scientific notions

We have already seen how Georges Politzer attempted to prove the materiality of knowledge from a philosophical point of view by means of pieces of evidence drawn .from the natural sciences. Others also made the same attempt

For this reason, we find it necessary to determine the philosophical position with regard to this issue, so that we can thwart the attempts seeking to confuse the philosophical and the scientific fields, and to charge that the metaphysical explanation of knowledge is on the opposite side of science and that it rejects the scientific truths .and assertions

That is

p: ۴۵۶

why we will isolate [our] general position regarding knowledge and shed some light on the various kinds of scientific research that will determine the points of difference between us and materialism in general, and Marxism in particular, as it will determine the aspects that scientific studies can take up and explore; so that this will make it clear (p. ۳۷۴) that such studies cannot be considered in support of materialism in the intellectual battle it fights against metaphysics for the purpose of establishing the .most complete philosophical notion of knowledge

We have already remarked that the aspects of knowledge touched upon or treated by those scientific studies are many, owing to the relation of the sciences to the various aspects of knowledge, rather due to the fact that a science has a variety of scientific schools, every one of which investigates knowledge from its own specific point of view. Physical and chemical researches, for example, explore certain aspects of knowledge. Physiology has its own share in exploring knowledge; also psychology, with its various schools, including the schools of introspectionism (al-istibtaniyya),(۱) behaviorism, functionalism (al-wazifiyya),(۲) and so on. Every one of these schools studies a various aspect of knowledge. After all of this, the role of philosophical

psychology emerges to treat knowledge from its own perspective. It investigates whether knowledge in essence is a material state of the nervous system or a pure .spiritual state

In what follows, we will clarify those various aspects to the extent needed to light up the path of

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Introspectionism is a school advocating reflection on, or subjective observation of -۱ the mental processes and states. Watson's behaviorism was a rejection of .introspection. It viewed the conscious states only in terms of observable data

Functionalism is a tendency in psychology asserting that mental processes, -۲ thoughts, sense perceptions and emotions are adaptations of the biological organism. Among the exponents of this tendency are: W. James, C.T. Ladd, C.S. Hall, J. Dewey .and J.R Angell

.our investigation, and to show our position regarding materialism and Marxism

Knowledge on the Level of Physics and Chemistry

On their own level of research, physics and chemistry treat the physical and chemical events that often accompany the acts of cognition. These events are exemplified in the reflection of light rays from visible things, the influence of those electromagnetic vibrations on a healthy eye, the chemical changes that occur (p. ۳۷۵) because of this, the reflection of sound waves from audible objects, the chemical particles that issue from odoriferous and flavored things, as well as other similar physical stimuli and chemical changes. All such events fall in the domain of the scientific application of .physics and chemistry

Knowledge on the Level of Physiology

In light of physiological experiments, a number of events and processes that occur in the sense organs and in the nervous system, including the brain; were discovered. Even though such events are of a physical and chemical nature, as are the above

processes, nevertheless, they are distinguished from those processes in that they .occur in a living body. Thus, they have a certain relation to the nature of living bodies

By means of such discoveries, physiology was able to determine the vital functions of the nervous system and the role that its various parts play in the acts of cognition. Thus, according to physiology, the brains are divided into four lobes: the frontal lobe, .the parietal lobe, the temporal lobe and the occipital lobe

Each of these lobes has its specific physiological functions. The motor centers, for example, are in the frontal lobe. The sensory

centers, which receive messages from the body, are in the parietal lobe. The same is true of the sense of touch and that of pressure. As for the specific centers of taste, smell and hearing, they are in the temporal lobe; while the visual centers are in the .[occipital lobe. There are further details [of the brain

Usually, one of the two main physiological procedures, ablation (al-isti'sal) and stimulation (at-tanbih), is used to obtain physiological information about the nervous system. (p. ۳۷۶) In the former procedure, various parts of the nervous system are ablated. Later, a study is made of the changes in the behavior that occur as a result of this ablation. In the latter procedure, on the other hand, specific centers in the cortex of the brains are stimulated by electrical means. The sensory or motor changes that .result from this are then recorded

It is very clear that by means of their scientific tools and experimental methods, physics, chemistry and physiology cannot disclose anything other than the events and contents of the nervous system, including whatever processes and changes it .undergoes

However, the philosophical explanation of the reality and essence of knowledge is not the prerogative of these sciences, since they cannot prove that such particular events are the same as the knowledge which we have as a result of our own experiences.

The indubitable and indisputable truth is chat such physical, chemical and physiological events and processes are related to knowledge and to the psychological life of a human

p: ۴۵۹

.being. They play an important role in this sphere

However, this does not indicate the soundness of the materialistic claim that insists on the materiality of knowledge. There is a clear difference between knowledge as something preceded or accompanied by preparatory processes on a material level and knowledge as something that is in essence a material phenomenon or a product of matter at a specific stage of growth and development, as the materialistic school .asserts

The natural sciences, therefore, do not extend their study to the philosophical field – that is, the field of investigating knowledge in its reality and essence. Rather, they are negative in this respect. This is so in spite of the fact that the school of psychological behaviorism attempted to explain knowledge and thought in light of physiological discoveries, especially the conditioned reflexive act whose application to the psychological life leads to a purely mechanical view of mankind. This will be discussed (later. (p. ۳۷۷

Knowledge in Psychological Research

Psychological research that addresses psychological problems and issues divides into two branches. One of them is the scientific research that constitutes experimental psychology; the other is the philosophical research for which philosophical psychology or the philosophy of psychology is responsible. Psychology and philosophy each has .its own methods and procedures for research and exploration

Psychology begins where physiology stops. Thus, it studies and scrutinizes the mental life and its psychological processes. In its practical studies, psychology employs two main procedures. One of them is introspection, which is used by many psychologists. In particular, this

procedure is a distinguishing mark of the school of psychological introspectionism which adopts subjective experience as an instrument for its scientific research, and .which advocates feeling as the subject of psychology

The other procedure is objective experience. Lately, this procedure has occupied the most important position in experimental psychology. Its importance was particularly emphasized by behaviorism, which considers objective experience as a basic constituent of science. Because of this, behaviorism claims that the subject of psychology is external behavior, since it is the only thing to which outward experience .and objective observation can be applied

The facts addressed by psychology are chose that can be disclosed either by introspection or by outward experience. As for those facts that lie outside the limits of experience, they cannot be the subject of experimental psychology. This is to say that this school of psychology extends just as far as the experimental field extends,. and ends where this field ends. There, the philosophy of psychology begins, where the experimental science stops, as (p. ۳۷۸) psychology begins its scientific march where .physiology stops

The most basic function of the philosophy of psychology is to endeavor to disclose those facts that lie outside the scientific and experimental field. Philosophy pursues this [end) by admitting the psychological postulates given by experimental science, and studies them in light of general philosophical laws. With the guidance of such laws, philosophy gives the scientific results a philosophical interpretation, and posits a .more profound explanation of mental life

Thus, the relation between psychology and

the philosophy of psychology is analogous to the relation between the experimental natural sciences and the philosophy of such sciences. The natural sciences investigate

the various phenomena of electric currents and fields, electric exhaustion and velocity, as well as other physical laws of electricity. The different phenomena of matter and energy are also studied along the same lines.

The nature of electricity and that of matter or energy, on the other hand, are the concern of philosophical research. The same is true of mental life. Scientific research takes up the psychological phenomena chat fall in the sphere of subjective or objective experience. Discussion of the nature of knowledge and the reality of the internal content of the mental processes is entrusted to the philosophy of psychology or philosophical psychology.

In light of this, we can always distinguish between the scientific and the philosophical sides of the issue. Following are two examples of this, drawn from the subjects of psychological research.

The first is mental dispositions concerning which both the philosophical and the psychological sides meet. The philosophical side is represented in the disposition theory (nazariyyat al-malakat) that asserts that the human mind is divided into powers and numerous dispositions for various kinds of activities. These powers and dispositions are exemplified by attention, imagination, memory, (p. ۳۷۹) cognition, will and similar features.

This idea falls under the scope of philosophical psychology. It is not a scientific idea in the sense that it is 'experientially scientific'. This is because whether experience is subjective, as

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is introspection, or objective, as is scientific observation of the external behavior of others, it cannot scientifically disclose the multiplicity or unity of dispositions; for neither the multiplicity of mental powers nor their unity can be subjugated to experimentation, regardless of its kind.

The scientific side of the disposition issue, on the other hand, points to the theory of

formal training in education. This theory states that mental dispositions may be developed as a whole and, without exception, by training in one subject matter and one kind of facts. This theory has been admitted by a number of educational psychologists who accept the disposition theory that prevailed in psychological .thought up to the nineteenth century

They assumed that if a disposition is strong or weak in a certain individual, it is also strong or weak in every area [in that individual]. Clearly, this theory is subsumed under the scope of experimental psychology. It is a scientific theory, since it is subject to the scientific criteria. Thus, it is possible to try to find out how memory is influenced in general by training in memorizing a certain subject matter. With this, it becomes .possible for science to assert its judgement in light of experiments of this sort

Subsequently, the scientific result of the experiment is presented to the philosophy of psychology, so that this philosophy may study, in light of philosophical laws, the philosophical significance of this result and its meaning of the multiplicity or unity of .dispositions

The second example is drawn

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from the heart of the subject matter under consideration. It is the act of visual perception. This is one of the main subjects of research in both scientific and .philosophical fields alike

In scientific research, a sharp debate (p. ۳۸۰) between the associationists (al-irtibatiyyin),(۱) on the one hand, and the defenders of the doctrine of shape or form (the Gestalt),(۲) on the other hand, centers on the explanation of the act of perception. Associationists are those who consider sensory experience as the only foundation of .knowledge

As chemists analyze chemical compounds into their primitive elements, associationists analyze the various mental experiences into primary sensations linked

and composed by instrumental and mechanical processes, in accordance with the .laws of association. There are two aspects to this theory of association

The first is that the source of the composition of mental experiences is primary sensations, or simple ideas that are apprehended by the senses. The second is that .this composition occurs mechanically and in accordance with the laws of association

The first aspen has already been studied in the theory of knowledge when we discussed the primacy source of human conception and the empirical theory of John Locke, who is considered the founder of the school of associationism. There, we concluded that the source of some units of conception and rational thought is not the .senses. Rather, such units are produced by the positive, efficient activity of the soul

The second aspect, on the other hand, was addressed by the Gestalt school that rejected the

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۱ - Associationism is a tendency insisting that all mental states are analyzable into .simple elements. Locke is a forerunner of associationism in psychology

۲ - In German, Gestalt is 'shape' or 'form'. The Gestalt school in psychology was founded in Germany around ۱۹۱۲ by Max Wertheimer, Wolfgang Kohler and Kurt Koffka. It interprets a person's experience in terms of organized wholes. It is through the whole that the parts acquire their existence and character. Without the whole, the parts do not exist. This is a clear rejection of the associationist's analytic tendency or .atomism

analytic approach to a study of the conscious states. It responded to the mechanical, associationistic explanation of the acts of knowledge by insisting that it is necessary to study every experience as a whole, and that wholeness is not just the melting or composition of sensory experiences. Rather, it has the nature of a dynamic rational .order that is in keeping with certain laws

After having clarified the above two tendencies, let us see their scientific explanation

of the act of visual perception. In light of the associationistic tendency, it is said that the image of a house, for example, that is formed on the retina is transported to the brain part by part. There, in a specific part of the brain, an image is found that resembles the image that occurs on the retina. The mind is then activated and supplies this brain image with ideas from previous experiences in the mind chat are mentally associated with a house. This is accomplished in accordance with the mechanical laws of association. (p. ۳۸۱) The result of this is rational knowledge of the .image of the house

In light of the shape or form tendency, on the other hand, knowledge from the very beginning is dependent on things as wholes and on their general forms, since there are primary shapes and forms in the external world that correspond to the shapes and forms in the mind. Therefore, we can explain the order of mental life by the order of the laws of the

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external world themselves, and not by composition and association. A part in a form or a whole is known only in accordance with the whole, and is changed in accordance .with the changes of the form

We give the name 'scientific explanation' to the explanation of such a visual perception, since it is included in the experimental field, or organized observation. Hence, knowledge of the form and the change of a part in accordance with the change of the farm are empirical. That is why the Gestalt school proved its theory by experiments that show that human beings do not only perceive parts. Rather, they perceive something else, such as the shape or the tune. All puts may come together .without that shape or tune being perceived

Thus, the form reveals all the parts. We do not wish at this point to elaborate the scientific explanations and studies of the act of visual perception. Rather, the above presentation is intended to help us determine the position of the philosophical .explanation that we attempt to give such an act

With respect to this, we say that after all those scientific studies, the mental perception of the visual image raises a question for both the Gestaltists and the associationists alike. This question concerns the image that is grasped by the mind and chat is funned in accordance with the mechanical laws of association, or in accordance with the laws of shape or form: 'What is the essence of such an image, and is it

p: ۴۶۶

a material or an immaterial image?' This basic question forms the philosophical problem that philosophical psychology must study and address. Materialism and .metaphysics respond to this question (p. ۳۸۲) by two contradictory answers

By now, it is very clear that scientific psychology (experimental psychology) cannot insist on the materialistic explanation of knowledge in this area, and cannot deny the existence of anything in the mental life which lies outside matter, as the materialistic philosophy does; for psychological experiments, whether subjective or objective, do .not extend to this mental field

Knowledge in the Philosophical Sense

point

Let us now begin our philosophical study of knowledge, after having clarified its significance and relation to the various practical studies, in accordance with the philosophical method of psychological studies. This method can be summed up, as mentioned, in the adoption of scientific truths and experimental postulates, and in the discussion of these truths and postulates in light of the laws and principles accepted in philosophy, so that one can infer a new truth behind the truths already discovered by .experiments

Let us take the mental perception of a visual image as a living example of the general mental life whose explanation is the subject of disagreement between metaphysics and materialism. Our philosophical notion of knowledge is based on the following: (۱) the geometrical properties of the perceived image; and (۲) the phenomenon of

.stability in the acts of visual perception

I. Geometrical Properties of the Perceived Image

In the former, we begin from an intuitive truth which we draw from our daily lives and various ordinary experiences. This is the truth

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that the image given to us (p. ۸۸۳) by the mental operation of visual perception involves the geometrical properties of length, width and depth and appears in various .shapes and volumes

Let us assume that we visit a garden that extends for thousands of meters, and that we cast one glance at it by means of which we are able to perceive the garden as one solid whole in which there are date palms, ocher kinds of trees, a large water pool, flowers and leaves bursting with various forms of life, chairs placed in order around the water pool, nightingales, as well as other kinds of birds singing on tree branches. The issue that faces us with regard to this beautiful image that we fully grasp in one glance is this. What is this image that we grasp? it is the same as the garden and its objective reality as such? Or is it a material image in a specific material organ of our nervous system? Or is it neither this nor that, but an immaterial image that resembles ?the objective reality and speaks of it

An ancient theory of vision(۱) advocated that the garden in its external reality is the image that is represented in our mental perception. This theory assumed that human beings perceive the very objective reality of things due to the fact that a certain kind .of light rays emitted by the eyes fall on the visible object

But this theory was dropped from philosophical consideration early

p: ۴۶۸

.This ancient theory of vision was held by Empedocles -۱

on. The reason is that the deception of the senses that makes us perceive certain

images in certain unreal forms proves that the perceived image is not the same as the objective reality. If this is not so, (the question arises as to) what the objective reality perceived in the deceptive sense perception is. This theory was later discarded from science, for science proved that light rays are reflected on the eye from visible things, and not vice versa; and that we have nothing from visible things other than the rays that are reflected on the retina. Science even proved that our vision of a thing may .occur years after the destruction of that thing

For example, we do not see Sinus in the sky !p. ۸۸۴) except when the light rays it emits reach the earth a number of years after they had been emitted from their source. They fall on the retina of the eve; thus we say that we see Sirius. But these light rays that lead to our seeing Sirius give information about Sirius as it was a few years earlier. It is possible that Sirius had disappeared from the sky a long time before we saw it. This is a scientific proof that the image we now perceive is not the same as .Sirius soaring in the sky -that is, as the objective reality of that star

It remains for us to consider the last two assumptions. The second assumption, which states that the perceived image

is a material product in the perception organ of the nervous system, is the assumption that determines the philosophical doctrine of materialism. The third assumption, on the other hand, which states that the perceived image or the mental content of the act of perception cannot be material, but is a form of metaphysical existence outside the material world, is the assumption that represents the philosophical doctrine of .metaphysics

At this point of the discussion, we can consider the materialistic assumption as completely improbable. The reason is that the perceived image with its volume, geometrical properties, and extension - lengthwise and widthwise - cannot exist in a small material organ of the nervous system. Even if we believe that light rays are reflected on the retina in a certain form, and are then transferred in sensory nerves to the brain where an image resembling that which occurs on the retina is produced in a

specific area of the brain, nevertheless, the material image is other than the mental .image

This is because the latter does not have the same geometrical properties that the perceptible image has. As we cannot take down on a small, plain piece of paper a photograph of the garden that we perceive in one glance equal to the garden in width, form and extension, (p. ٣٨٥) so also we cannot take down on a small portion of the brain a mental or a perceptual picture of this garden that resembles the garden in .width, form and geometical properties

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.This is so because the imprinting of a large thing on a small thing is impossible

Therefore, it is necessary to suppose the following. The perceived image, which is the real content of the mental operation, is a metaphysical form that has an immaterial existence. This is all that is meant by the metaphysical, philosophical notion of .knowledge

Here it may occur to some minds that the issue of perceiving an image with its shapes, volumes, dimensions and distances was responded to by science and treated by psychological research, which showed that there are a number of visual and muscular factors that help us grasp these geometrical properties. The sense of sight does not grasp anything other than light and color. The grasping of the geometrical properties of things is dependent on the link of the sense of touch to specific movements and sensations. If we free the visual sensation from all other sensations, .we will see nothing but spots of light and color

Moreover, we will not be able to perceive shapes and volumes. We will be unable even to distinguish between a circular thing and a cubic thing. This is because the primary qualities and forms are objects of the sense of touch. By repeating the touch experiment, a conjunction is produced between those tactile qualities and a number of visual sensations, such as specific differences in light and visible colors, as well as a number of muscular movements, such as the movement of adapting the eye to

seeing proximate

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and distant things, and the movement of the meeting of eyes in the case of visual perception.

After this conjunction occurs, we can dispense with the tactile sensations in the perception of shapes and volumes, due to the muscular sensations and movements that are associated with them. If, subsequent to this, we see a circular body, we will be able to identify its shape and volume without touching it. We do this by depending on (p. ۳۸۶) the muscular sensations and movements that have been associated with the tactile objects. This is how we finally perceive things with their geometrical properties: that is, not merely by the visual sensations, but by vision accompanied by other kinds of sensory movements that have acquired a geometrical significance because they were associated with the tactile objects. However, habit prevents us from noticing this.

We do not wish to study the theory of muscular and visual factors from a scientific point of view, for this is not the concern of philosophical inquiry. Let us, therefore, admit it as a scientific postulate and assume its soundness. This assumption does not change our philosophical position at all. This must be clear in light of the above delineation of the philosophical inquiry in psychological research.

The theory is tantamount to the assertion that the mentally known image - with its geometrical properties, length, width and depth - does not exist due to a simple visual sensation only. Rather, its existence is the result of cooperation with other visual

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sensations and muscular movements that had acquired a geometrical significance by means of their relation to the sense of touch and their conjunction with it in repeated experiences.

After admitting this, we face the very first philosophical question - namely, that which

concerns the mental image that is formed by the visual sensation plus other sensations and movements: 'Where is this image? Is it a material image existing in a material organ? Or is it a metaphysical image fret from matter?' Once again, we find ourselves required to adopt the metaphysical point of view. The reason is that this image with its properties and extension of thousands of meters cannot exist in a small material organ, as it cannot exist on a small paper. Therefore, it must be an .immaterial image

This is with respect to the phenomenon of the geometrical properties of the known .mental image

II. Stability in the Acts of Visual Perception

The second phenomenon on which our philosophical notion can rest (p. ۸۸۷) is the phenomenon of stability. By this phenomenon we mean that the known mental image is inclined to stability and does not change in accordance with the changes of the .image which is reflected in the nervous system

If, for example, we place a pencil at a distance of ۱ meter from us, a specific light image will be reflected from it. If we double the distance separating us from it and look at it at a distance of ۲ meters, the image it reflects will be reduced [in size] to half

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what it was in the first case. This is in spite of the fact that the change in our perception of the volume of this pencil is minimal. This is to say that the mental image we have of the pencil remains stable in spite of a change in the reflected material .image

This is clear evidence that the mind and its knowledge are not material, and that the known image is metaphysical. It is clear that this philosophical explanation of the phenomenon of stability is not incompatible with any scientific explanation of it that may be offered in this respect. Thus, you may be able to explain this phenomenon on the ground that the stability of known subjects in its various manifestations is ascribed to experience and learning. Similarly, you may, if you wish, say in light of

scientific experiments that there are determined relations between stability in its various manifestations and the spatial organization of the external subjects that we .know

However, this does not solve the problem from a philosophical point of view, for the known image, which does not change in accordance with the material image but remains stable as a result of a previous experience or due to specific spatial arrangement, cannot be the image that is reflected on the matter of the nervous system from objective reality. The reason is chat such a reflected image changes in accordance with the increase in distance between the eye and reality, while that .known image is fixed

The

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philosophical conclusion we draw from this discussion is that knowledge is not material, as materialism claims; for the materiality of an object is one of two things: it is either that that object is essentially a matter, or that it is a phenomenon existing in a matter. Knowledge is not essentially a maser, nor is it a phenomenon existing in, or reflected on, a material organ, such as the brain; (p. ۸۸۸) for knowledge is subject to laws different from the laws to which the material image that is reflected on a .material organ is subject

Knowledge primarily possesses geometrical properties, and secondarily possesses stability, something that no material image reflected on the brain possesses. On the basis of this, metaphysics holds that the mental life, with its knowledge and images is .the richest and most superior form of life, since it is above matter and its qualities

But the other philosophical issue stemming from the previous issue is that if the knowledge and images that form our mental life are not in a material organ, then where are they? This question called for the discovery of a new philosophical truth: namely, that such images and knowledge come together or move successively on the same level – that is, the level of thinking humanity. This humanity is not at all material,

.such as the brain or the medulla

Rather, it is a certain level of immaterial existence that a living being attains through his development and completion. Thus, the knower or

p: ۴۷۵

.thinker is this immaterial humanity

In order to make the evidence for this point very clear, we must know that we face three positions. One of them is that our knowledge of this garden or of that star is a material image existing in our nervous system. We have rejected this position and given reasons for its rejection. The other is that our knowledge is not material but immaterial images that exist independently of our existence. This is also an unreasonable assumption. If these images were independent of us, what is our ?relation to them then

Further, how do they become our knowledge? If we eliminate both of the above views, the only remaining explanation of this will be the third position: namely, that knowledge and mental images are not independent in existence from a human being, as they are not independent states or reflections in a material organ. Rather, they are .immaterial phenomena subsisting in the immaterial side (p. ۸۸۹) of a human being

Therefore, the immaterial or spiritual humanity is that which knows and thinks; it is not the material organ that does this, even though the material organ prepares the cognitive conditions for a firm relation between the spiritual and the material sides of .the human being

The Spiritual Side of a Human Being

At this point, we reach an important conclusion – namely, that there are two sides to a human being. One of them is material; it is represented in his organic composition. The other is spiritual or immaterial. The latter is the playground

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for mental and intellectual activity. A human being, therefore, is not just a complex .matter; rather, his personality is a duality of material and immaterial elements

This duality makes it difficult for us to discover the kind of relation or link between the material and the immaterial sides of a human being. We know first of all that the relation between the two sides is solid, so that each of them constantly affects the other. If, for example, a person imagines that he sees a ghost in the dark, he experiences a shudder. Also, if a person is made to speak publicly, he starts to .perspire

Further, if any of us begins to think, a certain activity occurs in his nervous system. This is the influence of the mind or soul over the body. Similarly, the body has its own influence over the mind. If old age creeps upon the body, the mental activity is weakened. Again, if a wine drinker indulges in drinking, he may see one thing as two. How then can each of the body and the mind affect the other if they are different and have no quality in common? The body is a piece of matter that has its own qualities of .weight, mass, shape and volume. It is subject to the laws of physics

The mind or soul, on the other hand, is an immaterial existent that pertains to a world beyond that of matter. Taking into consideration this gulf that separates the two sides

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makes it difficult (p. ۳۹۰) to explain their mutual influence. A piece of stone can crush a plant in the soil, since both are material; and two pieces of stone can touch and .interact

However, one must give some explanation as to how two beings from two (different] worlds can touch and interact. Most likely, the [difficulty of giving such an explanation] delayed modern European thinkers from adopting the notion of dualism, after they had rejected the ancient Platonic explanation of the relation between the soul and the (body as a relation between a driver and the chariot he steers.(۱

Plato thought that the soul is an old substance free from matter and exists in a

supernatural world. Later, it descends to the body in order to manage it, as a driver gets out of his home and enters the chariot in order to steer it and manage it. It is clear that Plato's explanation of this pure dualism or gulf that separates the soul and the body cannot explain the close relation between them that makes every human being feel that he is one, and not two, things that came from two different worlds and .then met

The Platonic explanation remained incapable of solving the problem in spite of the revisions made in is by Aristotle, who introduced the idea of form and matter, and by Descartes, who introduced the theory of parallelism (nazariyyat al-muwazana) between the mind and the body. This theory states that the mind and the body

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.Plato, Phaedrus, ۲۴۶ a۶ff -۱

the soul and the matter) move along parallel lines. Every event occurring in one of) .them is accompanied by a parallel event in the ocher

This necessary accompaniment between mental events and bodily events does not mean that either of them is a cause of the other. The mutual influence between a material thing and an immaterial thing makes no sense. Rather, this necessary accompaniment between these two kinds of events is due to the divine Providence that has willed the sensation of hunger always to be accompanied by the movement of the hand for reaching the food, without this sensation being a cause of this movement. It is clear that this theory of parallelism is a new expression of Plato's (dualism and gulf that separates the mind and the body. (p. ۸۹۱

The problems resulting from the explanation of the human being on the basis of a union of soul and body led to the crystallization of a new inclination in European thought for explaining the human being on the basis of one element. Thus, materialism in philosophical psychology developed to assert that a human being is nothing but matter. Similarly, the idealistic tendency was generated; it tended to give .a spiritual explanation of the whole human being

Finally, the explanation of the human being on the basis of the two elements the spiritual and the material, found its best formulation at the hand of the Muslim philosopher Sadr al-Muta'allihin ash-Shirazi. This great philosopher apprehended a substantial movement at the heart

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of nature. This movement is the most primary source of all the sensible movements that occur in nature. It is the bridge that ash-Shirazi discovered between matter and .soul

Matter in its substantial movement pursues the completion of its existence and continues its completion, until it is free from its materiality under specific conditions and becomes an immaterial being -that is, a spiritual being. Thus, there is no dividing line between spirituality and materiality. Rather, they are two levels of existence. In spite of the fact that the soul is not material, yet it has material relations because it is .the highest stage of the completion of matter in its substantial movement

In light of this, we can understand the relation between the soul and the body. It seems familiar that the mind and body (the soul and the matter) exchange influences, since the mind is not separate from matter by a wide gulf, as Descartes imagined when he found it necessary to deny their mutual influence and to assert their mere parallelism. Rather, the mind itself is nothing but a material image made superior by the substantial movement. Further, the difference between materiality and spirituality is just a matter of degree, as is the difference between intense heat and .lower heat

But this does not mean chat the soul is a product of matter and one of its effects. Rather, it is (p. ۳۹۲) a product of the substantial movement which does not proceed from matter itself. The reason is that

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every movement is a gradual emergence of a thing from potentiality to actuality, as

we learned in our discussion of development according to the dialectic. Potentiality cannot bring about actuality, and possibility cannot bring about existence. Therefore, substantial movement has its cause outside the matter that is in motion. The soul that is other than the material side of a human being is a product of this movement. As for .this movement itself, it is the bridge between materiality and spirituality

The Conditioned Reflex and Knowledge

Our disagreement with Marxism is not limited to its materialistic notion of knowledge, for even if the philosophical notion of the mental life were the main point of disagreement between us, we also remain in disagreement with it regarding the extent of the relation of knowledge and consciousness to social circumstances and .external material conditions

Marxism believes that the social life of a human being is what determines for him his conscious thoughts, and that such thoughts or ideas develop in accordance with the social and material circumstances. But since these circumstances develop in accordance with the economic factors, the economic factors, therefore, are the .primary factors behind the intellectual development

Georges Politzer attempted to establish this Marxist theory on the basis of a scientific principle. Thus, he established it on the basis of the conditioned reflexive action. In order for us to have a good grasp of his view, we must say something about the conditioned reflexive action. This kind of action was discovered by Pavlov when he once tried

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to collect a dog's saliva from one of the [dog's] saliva glands. He prepared a certain apparatus for this purpose. He then gave the dog food to make him salivate. He noticed that the saliva began to flow from the trained dog before the food was (actually placed in his mouth. (p. ۳۹۸

This was only because the dog saw the plate of food, or sensed the approach of the servant who used to bring the plate of food. It is clear that the appearance of a

person or his footsteps cannot be considered a natural stimulus for this response, as is the placing of food in the mouth. Indeed, these things must have been associated with the natural response during the long course of experimentation; so that they .came to be used as initial signs of the actual stimulus

According to this, the excretion of saliva when placing food in the mouth is a natural reflexive action produced by a natural stimulus. As for the excretion of saliva when the servant approaches or is seen, it is a conditioned reflexive action produced by a conditioned stimulus used as a sign of the natural stimulus. Were it not for its being .conditioned by a natural stimulus, it would not cause a response

Due to similar conditioning operations, living beings acquired their first system of signs. In this system, conditioned stimuli play the role of indicating natural stimuli, and eliciting the responses appropriate to the natural stimuli. After that, the second system of

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signs came into existence. In this system, the conditioned stimuli of the first system were replaced by secondary signs of themselves that they have conditioned in .repeated experiences

Thus, it became possible to elicit the response or the reflexive action by means of the secondary sign, due to the fact that this sign had already been conditioned by the primary sign. Similarly, the system of primary signs made it possible to elicit the same response by means of the primary sign, due to the fact that this sign had already been conditioned by the natural stimulus. Language is considered the secondary sign in the .system of the secondary signs

This is the theory of Pavlov, the physiologist. Behaviorism exploited this theory. (p. ۳۹۴) It claimed that mental life is nothing more than reflexive acts. Therefore, thinking is composed of internal linguistic responses evoked by an external stimulus. This is how behaviorism explained thought as it explained the dog's act of secreting saliva when .heating the footsteps of the servant

As the secretion is a physiological reaction to a conditioned stimulus that is the servant's footsteps, so also is thought a physiological reaction to a conditioned stimulus, such as a language, for example, that has been conditioned by a natural .stimulus

But it is clear that the physiological experiments on the conditioned reflexive action cannot prove that the reflexive action is the essence of knowledge and the real content of the acts [of knowledge], since it is possible that knowledge has a reality

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.beyond the limits of experimentation

Add to this that in adhering to the view that thoughts are conditioned responses, behaviorism destroys itself and eliminates [its] power to disclose the objective reality and value, not only of all thoughts, but also of behaviorism itself, since it is a notion .subject to the behavioristic explanation

This is because the behavioristic explanation of human thought has its significant influence on the theory of knowledge, the determination of the value knowledge, and the extent of the ability of knowledge to disclose reality. According to the behavioristic explanation, knowledge is nothing but a necessary response to a conditioned .stimulus

This is exemplified in the flow of saliva from the dog's mouth in Pavlov's experiments. Knowledge, then, is not the result of evidence and demonstration. Consequently, all knowledge becomes an expression of the presence of a conditioned stimulus of it, .and not an expression of the presence of its content in external reality

But the behavioristic notion itself is not an exception to this general rule and is not different from all other ideas in being influenced by the behavioristic explanation, the (reduction in its value, and the inability to be a subject of inquiry in any foam. (p. ۸۹۵

However, the truth is exactly the opposite of what behaviorism intended. Knowledge and thought are not, as behaviorists claim, physiological acts reflecting conditioned

stimuli, as is the excretion of saliva. Rather, the very excretion of this saliva indicates .something other than a mere reflexive reaction; it indicates knowledge

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This knowledge is the reason why the conditioned stimulus evokes the reflexive .response

Knowledge, therefore, is the reality behind the reactions to conditioned stimuli, and not a form of those reactions. We mean by this that the dog's excretion of saliva at the occurrence of the conditioned stimulus is not a mere mechanical action, as behaviorism holds. Rather, it is the result of the dog's knowledge of the significance of the conditioned stimulus. The servant's footsteps accompanied by the arrival of food .in repeated experiments began to indicate the arrival of food

Thus, the dog came to realize the arrival of food when hearing the servant's footsteps. Hence, he excreted his saliva in preparation for the situation whose approach was indicated by the conditioned stimulus. Similarly, the infant appears relieved when his nurse prepares to nurse him. The same thing happens when he is informed of her arrival - if he comprehends language. This relief is not a mere .physiological action resulting from an external thing associated to the natural cause

Rather it is the result of the infant's knowledge of the significance of the conditioned stimulus, since he then prepares himself to nurse and feel relieved. That is why we find a difference in degree of relief between the relief caused by the natural stimulus itself and the relief caused by the conditioned stimulus. This is because the former is .an authentic relief, while the latter is the relief of hope and expectation

We can prove scientifically the inadequacy of

p: ۴۸۵

the behavioristic explanation of thought. We can do this by the experiments on which the Gestalt doctrine in psychology was based. These experiments proved that it is impossible for us to explain the essence of knowledge on a purely behavioristic basis,

and as a mere response to material stimuli whose messages are received by the brain (in the form of a number of separate neurological stimuli. (p. ۳۹۶

Rather, in order for us to give a complete explanation of the essence of knowledge, we must accept the mind and the positive, active role it plays behind the neurological reactions and responses that are evoked by stimuli. Let us take sense perception as an example. The Gestalt experiments have proved that our vision of the colors and properties of things depends greatly on the general visual scene we encounter and .the background surrounding those things

Thus, we may see two lines as parallel or as equal within a group of lines that we encounter as a situation and as a whole whose parts are held together. Then within another group, we see them as not parallel or unequal. This is because the general situation that our visual perception encounters here is different from the previous .situation. This shows that our perception is first concentrated on the whole

We visually perceive the parts in our perception of the whole. That is why our sense perception of the part varies in accordance with the whole or the group including it. Therefore, there is

p: ۴۸۶

an order of the relations among things that separates things into groups, determines the place of everything in relation to its specific group, and develops our view of a .thing in accordance with the group to which it belongs

Our knowledge of things within this order is neither subject to the behavioristic explanation, nor is it possible to say chat it is a material response or a bodily state produced by a specific stimulus. If it were a bodily state or a material phenomenon produced by the brain, we would not be able to perceive things visually as an orderly whole whose parts are linked in a specific manner, so that our perception of such .parts would be different when we perceive them within other relations

This is because all that reaches the brain in knowledge consists of a group of

messages divided into a number of separate neurological stimuli that come to the .brain from the various organs of the body

How then can we know the order of relations among things, and how is it possible for knowledge to be concentrated first of all on the whole, so that we do not know things except within a firmly knit whole, instead of knowing them in isolation, as they are ?transported to the brain

How would all of this be possible had there not been an active, positive role (p. ٣٩٧) played by the mind behind the reactions and divided bodily states? In other words, external things may send

.different messages to the mind

According to behaviorism, these messages are our responses to external stimuli. Behaviorism may wish to say that such responses or material messages that pass through the nerves to the brains are by themselves the real content of our .knowledge

But what would behaviorism say about our knowledge of the order of relations among things which makes us perceive first of all the whole as united in accordance with chose relations, even though this order of relations is nothing material that can produce a material reaction in the thinker's body, or a specific bodily response or state? Thus, we cannot explain our knowledge of this order, and consequently our .knowledge of things within this order on purely behavioristic grounds

Marxism adopted Pavlov's theory and drew from it the following conclusions. First, consciousness develops in accordance with external circumstances. This is because it .is the product of conditioned reflexive actions that are evoked by external stimuli

:Georges Politzer makes the following point

By this method, Pavlov proved that what primarily determines the human

consciousness is not the organic system. But, on the contrary, this determination is made by the society in which human beings reside and by the knowledge that human beings acquire from this society. Therefore, the social circumstances in life are the real organizers of the mental, organic life.(1)

Second, the birth of language was the fundamental event that transported (p. ۳۹۸) human beings to the stage of thought. This is because the thought of a thing in

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1- Al-Maddiyya wal-Mithaliyya fi al-Falsafa, pp. ۷۸-۹.

the mind is the mere result of an external conditioned stimulus. Therefore, it would not have been possible for a human being to have a thought of anything were it not for the fact that some instrument, such as language, played the role of a conditioned stimulus.

The following is a passage from Stalin:

It is said that thoughts arise in the soul of a human being before they are expressed in language, and that they are produced without the instrumentality of language. But this is completely erroneous. Regardless of what the thoughts that arise in the human soul are, they cannot be produced or directed except on the basis of linguistic instruments. Language, therefore, is the direct reality of thought.(1)

We differ from Marxism with regard to both points. We do not admit instrumentality in human knowledge. Thoughts and knowledge are not mere reflexive reactions produced by the external environment, as behaviorism claims. Moreover, they are not the product of such reactions that are determined by the external environment and chat develop in accordance with this environment, as Marxism believes.

Let us clarify this matter by the following example: Zayd and 'Amr meet on a Saturday. They converse for a while, and then attempt to separate. Zayd tells 'Amr the following: 'Wait for me at your home next Friday morning.' Then they separate. Each

of them attends to his usual life. After the passage of some days, the time comes to make the visit.

Each of them remembers his appointment and

1- Ibid., p. ۷۷.

understands his position differently from the way the other understands his position. 'Amr remains at home waiting, while Zayd leaves his home setting out to visit 'Amr. What is the external conditioned stimulus that caused (p. ۳۹۹) different understanding in each of them, a few days after the previous meeting, and at this specific time? If previous conversations were sufficient for the present stimulation, why then do these two individuals now not remember all the conversations they had exchanged? Further, why do those conversations not play the role of stimuli and causes?

Another example is this. You leave home after having put a letter in your briefcase. You are determined to deposit this letter in a mailbox. While on the way to school, you see a mailbox. You realize immediately that it is necessary to deposit the letter in it and, thus, you do so. Later, you may come across many mailboxes that do not at all attract your attention.

What is the stimulus that causes your realization when you see the first mailbox? You may say that the cause is the sight of the box itself, since you have conditioned it by the natural stimulus. It is, therefore a conditioned stimulus. But how can we explain our unawareness of the other boxes? Further, why does the conditioning disappear when our need is met?

In light of the above examples, you know that thought is an efficient, positive activity of the soul, and not something at the disposal of physiological reactions. Similarly,

thought is not the direct reality of the cause, as Marxism claimed. Rather, language is

.an instrument for the exchange of thoughts. But it is not itself what forms thoughts

That is why we may think of something, yet make a long search for the appropriate word to express it. Again, we may think of a subject at the same time at which we are .conversing about another subject

In our detailed study of historical materialism in the work Our Economics, we offered an extensive criticism of the Marxist theories of human knowledge, [in particular,] the relation of knowledge to social and material conditions and the explanation of .knowledge on the basis of economic conditions

Similarly, we studied in detail the Marxist view that asserts that thought is produced by language and is dependent on language. For this reason, we now consider that what appeared in the first edition of the present book to be sufficient as a (recapitulation of our detailed study in the second series, Our Economics. (p. ۴۰۰

Therefore, social life and material conditions do not mechanically determine people's thoughts and conscious feelings by means of external stimuli. Indeed, a human being may freely shape his thoughts in accordance with the community and environment, as the school of functionalism in psychology asserts, from its influence by Lamarck's(۱) theory of evolution in biology. As a living being organically adapts in .accordance with his environment, so also does he ideationally adapt in the same way

.However, we must know the following

۱- Jean Baptiste Lamarck, French naturalist (۱۷۴۴-۱۸۲۹). He is the founder of modern invertebrate zoology. He coined the words 'vertebrate' and 'invertebrate'. He is best known for his theory of evolution. Although he was not the first to propose evolutionary development of living species, he was the first to speak daringly and openly of the view that species are not immutable. Living beings use some parts of their bodies quite a bit, while they use some other parts very little. The parts that are used a lot develop, while the parts that are little used die out. The development or

death that a part undergoes is transmitted to the offspring. Hence, acquired traits are inherited. His most important writings are: Natural History of the Invertebrates and .Zoological Philosophy

First, such adaptation is a part of the practical thoughts whose task is to organize the external life. But it cannot be a part of the reflective thoughts whose task is to disclose reality. Hence, logical and mathematical principles, as well as other reflective thoughts, proceed from the mind and are not shaped in accordance with the requirements of the social community. If this were not so, every truth would be destined to absolute philosophical doubt. This is because if all reflective thoughts were shaped by certain factors from the environment, and if they were to change in accordance with those factors, then no thought or truth would escape change and .replacement

Second, the adaptation of practical thoughts by the requirements and conditions of the community is not mechanical. Rather, it is freely chosen. It grows out of human free motives that lead one to create a system that is in harmony with one's environment and community. With this, opposition between the school of functionalism and the school of instrumentalism in psychology is completely .eliminated

In Our Society, we will study the nature and limits of this adaptation in light of the Islamic notions of society and the state, because this is one of the main issues with which the study and analysis of society are concerned. In that study, we will treat in .detail all the points that are briefly mentioned in the present discussion of knowledge

!Our final appeal is for gratitude to God, the Lord of the Universe

?Are those who know equal to those who do not know

al-Zumar: ٩

:Introduction

Ghaemiyeh Computer Research Institute of Isfahan, from ٢٠٠٧, under the authority of Ayatollah Haj SayyedHasanFaqihImami (God blesses his soul), by sincere and daily efforts of university and seminary elites and sophisticated groups began its activities .in religious, cultural and scientific fields

:Manifesto

Ghaemiyeh Computer Research Institute of Isfahan in order to facilitate and accelerate the accessibility of researchers to the books and tools of research, in the field of Islamic science, and regarding the multiplicity and dispersion of active centers in this field

and numerous and inaccessible sources by a mere scientific intention and far from any kind of social, political, tribal and personal prejudices and currents, based on performing a project in the shape of (management of produced and published works from all Shia centers) tries to provide a rich and free collection of books and research papers for the experts, and helpful contents and discussions for the educated generation and all classes of people interested in reading, with various formats in the .cyberspace

:Our Goals are

(propagating the culture and teachings of Thaqalayn (Quran and Ahlulbayt p.b.u.t-

encouraging the populace particularly the youth in investigating the religious issues-

replacing useful contents with useless ones in the cellphones, tablets and computers-

providing services for seminary and university researchers-

spreading culture study in the publich-

paving the way for the publications and authors to digitize their works-

:Policies

acting according to the legal licenses-

relationship with similar centers-

avoiding parallel working-

merely presenting scientific contents-

mentioning the sources-

.It's obvious that all the responsibilities are due to the author

:Other activities of the institute

Publication of books, booklets and other editions-

Holding book reading competitions-

Producing virtual, three dimensional exhibitions, panoramas of religious and tourism- places

.Producing animations, computer games and etc-

Launching the website with this address: www.ghaemiyeh.com-

Fabricatingdramatic and speech works-

Launching the system of answering religious, ethical and doctrinal questions-

Designing systems of accounting, media and mobile, automatic and handy systems,- web kiosks

Holding virtual educational courses for the public-

Holding virtual teacher-training courses-

Producing thousands of research software in three languages (Persian, Arabic and- English) which can be performed in computers, tablets and cellphones and available and downloadable with eight international formats: JAVA, ANDROID, EPUB, CHM, PDF, HTML, CHM, GHB on the website

Also producing four markets named "Ghaemiyeh Book Market" with Android, IOS,- WINDOWS PHONE and WINDOWS editions

:Appreciation

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